

THE GENERAL
PRACTICE of PHYSIC;
Extracted chiefly from the
WRITINGS

OF THE
Most celebrated Practical PHYSICIANS,
AND
TRANSACTIONS of the LONDON COLLEGE,
MEDICAL ESSAYS, and MEMOIRS of the
Learned ACADEMIES in EUROPE.

To which is prefixed
An INTRODUCTION,
CONTAINING
INQUIRIES relative to the PATIENT,
Of distinguishing one DISEASE from another,
Of the PULSE,
Of the Consent of the NERVOUS PARTS,
Of OBSTRUCTIONS, &c.

Multum egerunt qui ante nos fuerunt, sed non peregerunt: Multum
adhuc restat operæ, multumque restabit, neque ulli nato post mille
sæcula præcidetur occasio aliquid adjiciendi. SENECA.

By R. BROOKES, M.D.

In TWO VOLUMES.

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P R E F A C E.

IF we look back to the Origin of the *Art of Medicine*, we shall find its first Foundations to be owing to mere Chance, unforeseen Events, and natural Instinct. Nor does it appear there were in the Beginning any public Professors of this most useful Branch of Learning; for sick Persons were placed in Cross-ways, and other public Places, to receive the Advice of Passengers, who had Skill sufficient to direct them to an efficacious Remedy, suitable to their Disorder. And the better to preserve the Memory of any remarkable Cure, the Disease, the Remedy, and the Success, were engraved on Pillars, or written on the Walls of Temples, that Patients in the like Cases might have Recourse thereto for Instruction and Relief.

Hence it appears, that the Rise of this Art was owing to repeated Trials and long Experience, which gave an Insight into the Virtues of Herbs and Plants, Metals and Minerals; and in what Diseases they were attended with most Success. The Skill of the first Physicians was therefore termed *Εμπειρια*, [*Experience*,] and they themselves were called *Εμπειρικοί*, [*Empirics*,] Words which, however misapplied, at present, to Quacks and illiterate Pretenders, will, for ever, point out the true Method of medical Improvement. And had as much Time been spent in making cautious Experiments, and writing accurate Histories of Diseases, as in the inventing new Theories, and intermingling false Philosophy with true physical Knowledge, this Art would have appeared in its true genuine Lustre long ago. It is owing to Laziness, Inattention, or too hasty a Pursuit after

Fame, that we hear of so many Patients cured, who have been given over by the Physicians? Shall Gentlemen of superior Learning, great Abilities, and a thorough Acquaintance with the Animal Oeconomy, suffer themselves to be excelled by ignorant Medicaſters, when they themſelves are beſt qualified to adminiſter, with Judgment, the moſt potent Medicines of every kind. If theſe are the edge Tools of Phyſic, in whoſe Hands ſhall they be truſted, but in theiſ, who are beſt able to wield them, to vanquiſh the formidable Enemies which bid Deſiance to every gentler Method.

But a Backwardneſs to make Improvements is not all we have Cauſe to lament; for there is a ſtrange Repugnance in many to admit any new Diſcovery, however beneficial to Mankind. Of this the *Peruvian Bark* is a notorious Inſtance, which made its way into the World with ſuch unaccountable Difficulty. I might alſo mention the Time when the *Lues Venerea* firſt appeared in *Europe*, when the Cure of that filthy Diſeaſe was entirely in the Hands of Barbers, and other Perſons of the ſame Claſs; who boldly ventured upon *Mercury*, practiſed with Succeſs, and quickly filled their Pockets; while the regular Phyſician, adhering cloſely to the Rules of *Galen*, uttered ſharp Invectives againſt theſe enterprizing Quacks, and gave their Patients the Satisfaction of dying miſerably according to Art. How neceſſary therefore is it, for a Practitioner to be void of Prejudice, to abound with Candour, and to embrace real Improvements with Eagerneſs.

But in other Reſpects it is happy for us that former Ages and the preſent admit no parallel; all Sects and Parties are now baniſhed from the Commonwealth of Medicine, the operoſe Jumbles of Compoſitions are expunged from our Diſpenſatories, and this ſalutary Art is again re-aſſuming the native Splendor of its original Simplicity. Others are treading in the ſame Steps with our immortal *Sydenham*, who was an Imitator of *Hippocrates*,

and

P R E F A C E.

and whose Works shall live, when a thousand *theoretical Volumes* are condemned to the basest Uses.

There are *Powers in Nature* which are beyond the Reach of our intellectual Faculties, and *Phænomena* which have baffled the Enquiries of Ages, though they seem to come more immediately under the Examination of our Senses. How then can we determine what is doing behind the Curtain? By what Hypothesis can we explain the fresh Vegetation of mangled Trees and Plants, and the various Methods of their Propagation? Or by what Theory now in vogue, can we account even for the Regeneration of a Lobster's Claw? Much less can we tell why the Issue of two different Animals loses the Power of Generation. And yet that this is the Case of Quadrupeds, has long been generally known. It is likewise the same with Birds, as all who delight in Breeding those of the singing Kind can affirm, from their own Experience. With regard to our own Bodies, it is true, in the utmost Extent of the Phrase, that *we are fearfully and wonderfully made*, and the more we enquire into the Nature of Man, the more Reason we have to admire the Wisdom and Power of the Creator; and the greater Occasion to confess our own Ignorance. But the Laws of Nature are more within our Reach, and to gain Acquaintance with them is an Occupation worthy of a true Philosopher, and without which no Man deserves the Name of a Physician.

Now as some Improvements have been made in this Respect, and Medicines discovered, or differently applied, of which no tolerable Account has yet been given, in any practical Treatise of this Kind, I thought I could not do a greater Service to the Public, than to bring together the best Parts of different Authors, and place them in such a Manner, as, I hope, will be of great Use to many young Physicians; and as for the more experienced, if it does not improve their Knowledge, it will at least refresh their Memories. Of this I am now the more confident, not only from the kind Reception the

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five former Editions have met with, but also from the favourable Sentiments which some of the first Rank for Merit among the Faculty have been pleased to discover relating thereto. And certainly every Assistance, how small soever, must be looked upon with a favourable Eye, which has a Tendency to prevent Errors in Practice, and consequently to save the Lives of many, who might otherwise fall Victims to Want of Skill in some of the Professors of this most necessary Art. I might, with more Ease to myself, have digested the Extracts which I have collected into one continued Discourse, but then it would have wanted the Authority which such a Treatise requires. When Authors of great Note differ in their Opinions about any material Point, I have not concealed it, that Practitioners might proceed with Caution, and not determine too rashly in doubtful Matters; but leave the Decision to careful Observation and unbiassed Experience.

I have given various Prescriptions in most Diseases, not as an absolute Standard for Practice, but as Patterns for Imitation, which, generally speaking, are to be varied according to the Sex, Age, and Constitution of the Patient. Of these I have chiefly preferred the most simple; for I think nothing more destructive to sound Practice, than an inconsistent *Farrago*, which renders it impossible ever to determine the Virtue of any Medicine, or to know to what their successful or pernicious Effects are owing. Conceited Authors may rail at specific Qualities as much as they please, but it is impossible for them to make any Proficiency in the Art of Healing, without an adequate Knowledge of the Alterations each Drug will produce in a Human Body, not by their mechanical Action, but by their singular Properties. And I heartily wish this Branch of it was pursued with Diligence, and improved with Judgment. I should be glad to know whether the Knowledge of the Effects of the four *Herculean Remedies* are owing to *Reasoning à priori*, or not? I mean *Opium*, *Mercury*, the *Peruvian Bark*, and *Steel*; to which may be added a fifth, which is *Antimony*. For if
our

our Acquaintance with the Virtues of these is the Result of Experience only, why should we stop in our Enquiries, or conclude we have already arrived at the *Ne plus ultra* of the *Æsculapian Art*?

I am no Enemy to the *mechanical Practice*, but am very sure it falls greatly short of Expectation; and also that the Manner of some, in explaining the Effects of Medicines, is very insufficient. When we are told, very gravely, that *Quicksilver* in the Blood Vessels is like Shot in a Bottle, which, by its *Gravity* and *Momentum*, scours off all Impurities, and opens the Obstructions; I know not whether it ought to raise our Laughter or Indignation.

But supposing this is allowed to be an ingenious Solution of its surprizing Operation, I shall still be at a Loss to account for its Virtues in external Applications, or why the very Water that it is boiled in proves an *Anthelmintic* of a superior Class.

This is a small Specimen of the Reasoning of those Gentlemen, who would be thought very skilful in abstruse Matters; which generally proceeds from a strange Repugnancy in human Nature to be esteemed ignorant of many Things which are placed without the Sphere of our Knowledge. Hence all the Absurdities of *Des Cartes*, and his Followers, who have taken vast Pains to circumscribe the Universe within the Laws of Matter and Motion: Hence such a strange Variety of Cobweb Theories which have been industriously propagated and eagerly followed, to the no small Detriment of the Art of Healing, and the endangering the Lives of Millions of unhappy Patients. Attempts like these must needs be fruitless and vain; for all sedate and sagacious Enquirers must be forced to own, that every Animal Function and the Progress of Nature, in all Diseases, disdain the Efforts of human Reason to bring them under Subjection. The vital Principle, and spontaneous Motion of the most despicable Insects remain impenetrable Secrets; and the pretended Discovery of *Leeuwenhoek* relating to the *Primordia* of Animals is a most glaring Instance of the Folly and

and Credulity of Mankind. A modest Philosopher will study to find out the proper Objects of our Knowledge, and how far well directed human Enquiries may probably reach. He will likewise make a judicious Application of his Discoveries, and not stretch mechanic Laws beyond the Limits appointed by Nature.

Let none think that Medicines are to be given at Random, in every Stage of acute Diseases; for here the Physician's Judgment is absolutely necessary. And the seasonable Exhibition of a Remedy, after the Guidance of Nature, will always distinguish the able Practitioner from the dangerous Quack. For this Reason, I have been careful in reciting all the Symptoms of Diseases, and their natural Progress to Recovery or Death.

There is nothing I would recommend more to a Practitioner, than Affability and Sweetness of Temper, with Regard to the Patient, and to take all prudent Methods to keep up his Spirits; nay, even when in a Disease it is necessary to wait to observe the Tendency of Nature, it will not be amiss to give innocent Trifles, to convince him he is not neglected. For when a sick Person is persuaded that he has a diligent and able Physician, that very Persuasion will contribute greatly to promote the Cure. On the other hand, there is nothing more dangerous than a fatal Prognostic; for this, instead of demonstrating superior Knowledge, too often either dejects the Patient, and hastens his Exit, or proves the would-be *Æsculapius* to be a mere Medicafter, who, perhaps, would be better pleased with a sinister Event, than to see his Skill in Predictions baffled by a Recovery, which would plainly prove him to be no infallible Conjuror.

I would also advise, that Regard may be paid to the Patient's Appetite, or longing for any particular Thing, however incongruous it may seem; since we have been taught by Experience, that Gratifications of this Kind have frequently been attended with a salutary Effect. Thus cold Water, Grapes, Oysters, Herrings, and the like, have cured the Disease when the Physician has attempted

tempted it in vain. Examples to confirm this are frequent in accurate Writers; and *Tulpius*, in particular, affirms, he has known the like happen an hundred Times in the Quartan Ague, and Dropsy.

Analagous to this is the *Pica*, or Longing of pregnant Women, who frequently eat and drink what would be highly prejudicial to others, both as to Quantity and Quality. And it is well known what terrible Consequences have ensued when the Things longed for could not be obtained, or have been denied: So necessary it is to follow the Indications of Nature.

With Regard to the *Solanum*, I am afraid the Effects of it are very dubious; for though *Junker* says he has seen a most deplorable *Cancer* cured by it, yet he speaks of it in such a Manner as to give little Encouragement for bringing it into Practice in Cases of this Kind; and I wish I could say the Hospitals had found the Virtues of it to answer their Expectations. However, as the Use of the *Solanum*, especially of the Garden Kind, is attended with no dangerous Symptoms, but has met with Success in some Cases, it may serve to revive the Use of certain Vegetables, which are commonly called Poisons; though there are many Drugs used in Medicine more worthy of that Name; for every one knows that very large Doses of a drastic Purge will as certainly kill, as the most deleterious Vegetable of them all. It is likewise certain, that *Semina Hyosciami*, *Cicuta*, &c. may be safely given in larger Doses than *Opium*. Now as these act more directly on the Brain, perhaps they may not be improperly given to rectify the Disorders which proceed from that Part. This may seem a Paradox, but it is not wholly unsupported by Authority; for Sir *Theodore Turquet de Mayerne* affirms, that *Sem. Hyosc.* are an excellent Remedy against the Epilepsy, if taken for forty Days. The Dose at first is six Grains, which must be gradually increased to twenty. *Paul Herman* prescribed a Scruple for an *Hæmoptoë*, and *Hoffman* has considerably enlarged the Dose. With Regard to the *Cicuta major*, I

have been lately informed that it has cured Madness; and at present it is by some extolled for Cancers. The Root has formerly been given inwardly with Safety. *Pettiver* declares, he has taken half an Ounce of it at a Time, without any bad Effect; and Dr. *Bowles*, as we are told by *Ray*, affirms, he has given a Scruple of it in malignant Fevers, and before the Fit of a Quartan Ague, as the best Diaphoretic then known. *Reanalmus* gave the Powder of it in Wine from one Scruple to two, and from one Dram to two in Infusion, against a schirrous Liver and Pancreas, with happy Success.

This being the Case, there can be no Harm in making a Trial of their Effects in desperate Diseases, and where there is no Cure to be expected but by the Assistance of some powerful Agent.

In this Sixth Edition the several Articles in the Appendix to the last Edition are properly distributed through the Volumes, with the several recent Discoveries and Improvements in the Art of Medicine which have been made both in *Great Britain* and other Parts of *Europe*. So that, upon the whole, it is hoped, that this Work will be considered as a useful Repertory which young Physicians may easily consult for their Information and Direction, and which those of a more advanced Class may have Recourse to, for the Methods and Opinions of their most celebrated Contemporaries.

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THE
INTRODUCTION.

Of ENQUIRIES to be made relating to the PATIENT.

TO obtain a competent History of any Disease, such Enquiries are to be made, and Circumstances known, as shew the *Genus* and *State* of the same; also the Operations and Effects of the Medicines are to be carefully observed. A particular Regard must be had to the *Symptoms*, which differ strangely in different Subjects, on Account of the various Constitutions of different Bodies. For we often see the same *Aliment*, the same *Cathartic*, the same *Emetic*, and even the same *Poison* produce various Effects in different Constitutions: Likewise the morbid Causes of the same Nature produce different Appearances of the Disease, with regard to the Symptoms and Event, according as the Subjects differ.

It will be therefore necessary to enquire into the Age, Sex, Structure, and natural Habit of the Body, as well as the acquired Habit and Strength of the Patient, and whether he has an hereditary Disposition to this or that Disease. In Childhood there is a remarkable Softness of the Fibres, a lax and thin Habit, with an Abundance of *Serum*: Young Persons have tense and contractile Fibres, with more hot Blood, which is also more apt for Motion; those that are old have a great Rigidity of the Solids, and a Straitness of the Passages, Vessels, and Canals, with a *sulphureous Dyscrasy* of the Humours. From this different Constitution of the Parts arise the different State and Mechanism of the Solids and Fluids, and a Proneness to certain Diseases; as also the Variety of Manners and Inclinations.

Likewise Regard must be had to the Female Sex: For they are not only obnoxious to distinct Diseases, which arise from Disorders of the Menses and Child-bearing, but the System of their Nerves is likewise more weak, whence they are more liable to spastic and convulsive Disorders, and are more easily restored to Health than Men.

It is likewise proper to know whether the Patient be of a lax or tense Habit of Body; whether the Vessels are slender and numerous, or large and few; because in narrow and slender Canals, the progressive Motion of the Fluids is more difficult, as well as the Secretions and Excretions; for these are more quick and ready when the Fibres are tense, and the Vessels pretty large. Whence we may observe, that they are more liable to Disorders, and grow well with more Difficulty, whose Fibres are more strong, and whose Circulation of the Fluids is more quick. The same also may be said of lean and fat Persons.

Regard is also to be had to the Colour of the Face and Skin. A fair, florid, and clear Complexion, shows the Purity and the Pellucidness of the lymphatic Fluids: If it be livid, lurid, and yellow, it discovers a *salino-sulphureous Impurity* of the same, and a disordered Secretion in the proper Organs, especially of the Liver.

It appears from daily Observation, that the Debility, Defects, and Faults of the *Viscera* and Fibres, as well as Diseases proceeding from thence, often descend to the Children; and the Practitioner should be informed hereof. For hereditary Imbecillities and Weaknesses are more difficult to be cured, more readily return and tire the Physician's Patience, than others.

It is likewise necessary to know the *Strength*; whether the Patient's Spirits are low, especially in the Beginning of an acute Disease; for Weakness and Lowness are then bad Signs. But if the Person is in Strength and Vigour, which appears from the Motion and Impulse of the Fluids, there are great Hopes of recovering Health.

We are not only to examine the Condition of the Body, but the State of the Mind, and what Disorders it is liable to; because there is a wonderful Connection between the Mind and the Body. A greater Tensity and Mobility of the Fibres and Solids disposes the Mind to *Anger*; whereas a Laxity and Defect of the *Vis motrix* show the Person to be dispirited, timid and fearful. On the other hand, *Anger* increases the Tone and Contractions of the Solids, and renders the Fluids more impetuous, but *Timidity* dissolves and dejects the Strength; whence the Circulation of the Fluids is more slow. *Terror* greatly constricts the Surface and extreme Parts of the Body, and drives the Blood to the interior

rior and noble Parts, that is, the *Præcordia* and *Head*; whence proceed grievous Disorders, especially of the *Genus nervosum*, which it enervates and renders languid. The same may be said of *Sadness*, which often proceeds from a Defect of the *Viscera*, and a faulty Circulation of the Fluids, as in the *hypochondriac Passion*; but when its hurtful Influence attacks the solid Parts, it wonderfully dejects the Strength of the whole Body, and hurts its Functions, relaxing and lessening the Strength of the Fibres.

If the Mind is not composed and at Ease, but subject to various Passions and Commotions, Diseases are cured with greater Difficulty; therefore Enquiry is to be made, whether the Patient is not addicted to hard Study, and to profound and fatiguing Meditations, which is common in those who apply themselves to the Sciences of *Metaphysics* and *Mathematics*, and are fond of *nocturnal Lucubrations*; for intense Thinking consumes the Spirits, and brings on a Weakness of the Brain and nervous Parts; whence they are subject to dangerous Diseases of the Head, namely, *Apoplexy*, *Melancholy*, *Madness*, and *Weakness of Memory*.

It can hardly be imagined what a Consent there is between the Brain and its Membranes, between the Stomach and the adjoining Intestines, they being greatly nervous, and indued with an exquisite Sense; whence many Students are troubled with a bad Digestion, Costiveness, and the *hypochondriac Passion*.

Besides, it is necessary to consider the Place where the Patient lives, the Nature of the Air, and his usual Diet. Places that stand high exposed to the Winds, have a more pure and salubrious Air; those that are low, breathe an Air which is more condensed, more thick, and full of impure Vapours; than which nothing can tend more to generate grievous and chronical Affections, and to destroy the Vigour and Strength of the Solids.

With Regard to Diet, Enquiry must be made whether they feed grossly, and live upon Flesh that is smoak-dried and salted, and coarse Bread; to which those who inhabit maritime Places being accustomed, are subject to a *Dyscrasia*, or a scorbutic Impurity, which is endemic in those Parts: Or whether the Patient has been used to eat Summer Fruits, Sallads, farinaceous Things fried with Butter, Eggs, and such like. Some delight in Cheese, and feed upon it immoderately, which produces Obstructions, and generates Gravel. Next, Enquiry must be made into their Kinds of Drink; which, if it be temperate, aqueous and diluting, it is more healthy. Hence gross nourishing Malt Liquors, especially if stale, as well as Wine and Spirits drank upon an empty Stomach, tend greatly to the Destruction of Health: By these the *Viscera* are indurated, polypous Concretions are generated, and the *Temperies* of the Humours disturb-

ed; whence a Hætic, a Cachexy, a Dropsy, an Apoplexy, or sudden Death.

When a Man wants Plenty of Fluid to preserve Health, nothing can be worse than to drink too sparingly; for the small Tubes become obstructed thereby, and are filled with viscid and gross Humours; which are fruitful of various Diseases.

Besides, it is necessary to be known, whether the Patient has drank cold Liquors when he was in a Sweat, and exceeding hot, as it is a common thing to drink too freely and quickly of cold Liquors, after Exercise or violent Passions of the Mind, or after a critical and salutary Excretion of Blood; whence the whole Oeconomy of the vital Motions and Functions is disturbed and perverted, insomuch that Poison itself cannot have a more speedy or more pernicious Operation.

Enquiry must be made into the kind of Life, whether it be laborious or inactive; accustomed to Exercise or sedentary; whether the Person be a Courtier or a Soldier, a Student or a Tradesman; whether he be conversant among Metals and Minerals, or works at the Fire; for every kind of Life produces particular Diseases: Thus Brasiers are subject to Diseases of the Eyes; Husbandmen to those of the Breast; Makers of Starch to Coughs and Phthificks; Porters to Asthmas, Ruptures, and bursting of the Vessels in the Breast; Tallow-Chandlers to Diseases of the Head and Stomach; Workers in Tow, Hemp, and Silk, to Shortness of Breath; Leather-dressers are generally cachectic and hydropical; Runners of Races are often troubled with a Shortness of Breath, and spit Blood; Carpenters are subject to sore Eyes; Nightmen are apt to be blind; Plaisterers are troubled with Shortness of Breath, and Consumptions; Washerwomen are liable to Difficulties of Breathing and Dropsies; Makers of Oil are cachectic and asthmatic; Plumbers are frequently paralytic; House-painters are generally Valetudinarians, cachectic, costive and paralytic; Fishermen have Ulcers in their Legs; Bakers are troubled with Coughs, Hoarseness, and Lippitude, as as well as a Constipation of the Pores; Cutters of Tobacco are subject to the Vertigo, and the like.

As there are no Persons but what are apt to be guilty of an Excess of one kind or other, it will be necessary to enquire into their Diet, Drink, Sleep, Exercise, Use of Tobacco, &c. In our Age the Drinking of Coffee is very common; hypochondriac Patients are generally excessive in the Use of Medicines and other Things; all which Errors have some Influence upon the Body, and ought to be enquired into and considered.

Another thing to be examined is the *Excretions*; for unless these are regular, Health cannot be maintained, and therefore

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if they are too plentiful, defective or suppressed, they will cause various Disorders. Hence if a Person begins to be costive, it is generally the Forerunner of some Disease. Regard is also to be had to Perspiration, which carries off more Matter than all the Emunctories besides. This depends greatly upon Cloathing, and keeping the Body in equal Warmth, as also upon the Warmth and Moisture of the Feet: On the other hand, if the Feet are dry and cold, and their Pores contracted, it shows that Perspiration is stopt. Hence if in cold, moist, changeable, and unequal Weather, as also in the vernal and autumnal Seasons, the Perspiration of the Body is greatly diminished, it becomes languid and subject to the reigning Diseases.

As a Man generally takes more Aliment than is necessary to generate Blood and Serum, and the common Excretions are not sufficient to carry off superfluous Humours, extraordinary ones sometimes happen at stated Times: Hence the Bleeding Piles and Hæmorrhages of the Nose, as also large Sweats, Loosenesses, Running at the Nose, Coughs, plentiful Spitting, all which tend to promote Health; and if these are defective or suppressed, dangerous Diseases may arise. Wherefore it is highly hazardous to suppress Secretions of this kind: Hence great Passions of the Mind, especially Terror, which constringes the small Vessels, very cold Air, and sudden Refrigerating of the Body, produce dangerous Stagnations of the Fluids, and sudden and capital Disorders in the vital Motions. The same may be said of critical Excretions, if unadvisedly stopt; for they not only renew the Disease, but render it much more dangerous.

The Practitioner should likewise enquire what Diseases the Patient has been subject to, at what Time, and how cured; for it often happens, in the rash and imprudent Cure of Diseases, that terrible and dangerous Symptoms are produced, and that the driving away one Disease is productive of a much worse: Likewise the Patient sometimes will not observe any Rules, but daily committing Errors in the Non-naturals, accumulates the morbid Matter afresh, and contracts a Disease.

Sometimes Diseases are strangely complicated, insomuch that if the Patient was affected with a hypochondriac Passion, or a Cachexy, Scurvy, Debility of the Head, Spitting of Blood, Consumption, Piles, Gravel, or Gout; another Distemper supervenes, which requires the utmost Prudence, and a different Method of Cure.

It is likewise necessary to enquire whether the Patient is plethoric, or abounding with bad Humours, or cachochymic; what is the State of the Stomach and Intestines, whether subject to Eructations, Wind, and Spasms, with Costiveness, and if he be hy-

pochondriac; what is the Condition of the Liver; whether the Circulation thro' it be impeded; whether the Bile is duly secreted; which will appear from the Colour of the Face, and the diminished Nutrition of the Body. Moreover, Enquiry must be made into the State of the Lungs, and whether they are whole and sound; which will appear from the Breathing being easy or difficult, and the Kind of Spittle which is rejected. Lastly, the *Temperies* of the Brain and nervous System is to be examined, and determined from the Nature of the Sleep, Affections of the Mind, and Disturbance of the Imagination.

These Things being considered, we must proceed to the Disease itself, as, whether it be common or epidemic; whether the Virulence appears on the Skin in Pustules, or otherwise; whence the Crudity and virulent Nature of the Matter which forms the Disease may chiefly be known; because while it remains on the nervous Parts, it produces Anxiety of the *Præcordia*, Coldness of the Extremities, reaching to vomit, Pains of the Head, and Back about the first *Vertebra* of the Loins; Quickness and Hardness of the Pulse, Disturbance of the Mind, and Difficulty of Breathing: But when it is expelled to the Surface of the Body, these severer Symptoms generally remit, and are in some Degree appeased. Enquiry must likewise be made whether the Patient was seized with a great Prostration of Strength, and remarkable Languor of the Parts; whence the occult Corruption of the Humours, commonly called Malignity, may probably be known.

As there is no Fever, or other Disease, which has not sensible Remissions and Intermissions of the Symptoms, the Physician ought to know the State of the natural, vital, and animal Functions, as well in, as out of the Paroxysm. For in the Accessions, *Impetus* and Strength of the Disease, when the Motion of the Solids and Fluids are more intense and quick, it is necessary that all Things which increase and exasperate the Motions and Excretions should be quite omitted; but on the vacant or intercalary Days, when the Fit is off, and all the Motions are weak, especially the Pulse, those Things may be used which serve to move and exterminate the peccant Matter: And more especially in the Increase of Diseases, the animal, vital, and natural Functions are to be regarded; because from the Degree of the Disorder of these, the Violence of the Distemper is to be determined.

In acute Diseases we may know the Genus and Force of the Disorder, from the Respiration, and the Nature and Condition of the Pulse. There is an evident Agreement between the Brain and the Heart; for all Diseases of the Brain and Nerves, all Affections of the Mind, produce a Change in the Pulse. Besides, as no Patient dies without an Inflammation and internal

nal Mortification, and as the Inflammations of the Stomach and Membranes of the Brain are produced easily in acute Diseases, and as in the chronic the Mortification of the *Viscera* put a sudden Period to Life, the Physician should carefully attend to these fatal Symptoms, in order to manage the Disease with greater Certainty.

Likewise the State of the *Primæ Viæ* is carefully to be examined, as whether they are replete with *Sordes*, whether the Body is costive or otherwise, the Quantity, Quality, and Colour of the Excrements; that the State of the natural Functions may be certainly known. Also the Consistence, Nature, Quantity and Colour of the Urine ought to be considered; from which, being compared with other Symptoms, the spasmodic Strictures of the internal Parts may be known, and the Increase or Decrease of the preternatural Heat determined.

It will likewise be necessary to observe nicely the Operations of the Medicines, and what Changes they produce; whether the Force and Vehemence of the Symptoms are mitigated or increased, or whether nothing of this Kind happens: For Remedies which are profitable to some Patients, may hurt others; but the Way not to be deceived, is to observe all the Circumstances and Appearances, which are contained in an accurate History of the Disease, otherwise Mistakes may arise; the Strength and Operations of Medicines being always conditional, according to various Constitutions, Places, Seasons, and other Circumstances.

As many acute Diseases are as often cured without Medicines, by the Benefit of Nature, and domestic Remedies, as when the Patient takes great Quantities of the most precious Compositions; it would advance the Knowledge of Physic to observe all their Circumstances, Time, and Order; and also with what Excretions, with what Successions of Symptoms the Disease advances, and is at last terminated. For it sometimes happens that Physicians are called in, and prescribe their *Arcana*, and think they have cured Disorders thereby, which would have ended by the sole Benefit of Nature.

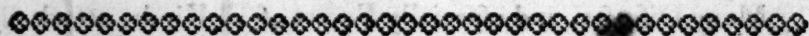
Many Diseases, and especially Fevers of all Kinds, attack divers Persons at once, and are attended with particular Symptoms, requiring sometimes one Kind of Management, and sometimes another; therefore the Causes of these Diseases can be nothing else, but such as are common to many Men, and equally affect them all. The most common of these is the unhealthy State of the Air, which is a Fluid absolutely necessary to the Preservation of Life: wherefore Changes of the Air must affect the *Temperies* and Constitution of the Solids and Fluids, and produce preternatural Habits. This is evident from the different Seasons

8 *Of distinguishing one DISEASE from another.*

of the Year, from the Changes of Weather, and the Variety of Winds, which produce very sensible Effects.

But the State of the Air alone is not sufficient for the Generation of epidemic Diseases. For it is evident from Observation, that in the same Climate, and same Constitution of the Heavens, a Disease shall infect the Inhabitants of one Place, and not another; as appears from the Small-pox, Dysenteries, and Miliary Fevers. Wherefore Recourse must be had to the Nature of Exhalations from Pools and marshy Places, which are replete with sulphureous, vitriolic, aluminous, bituminous, saline, and other Particles; which Variety of *Effluvia* cannot be demonstrated more plainly than from the Diversity of Malt Liquors, which, though they are brewed from the same Malt and Hops, and in the same Manner, excepting the Water, wonderfully differ in Taste, Colour, and Virtue.

Regard must likewise be had to the different Way of Living, and Kinds of Aliment, from whence the Cause of Epidemic Diseases differ in their Nature, Matter, Texture, Power, and Virtue; and affect the Structure and Motion of the Body in a preternatural Manner. These Causes and concurrent Circumstances being known, an epidemic Disease may be predicted, and the best Method of Cure be advised. This indeed is a difficult Task, but the Hopes of performing it are not altogether to be despaired of, especially if skilful Physicians, well instructed in the Nature of Things, would unite their Counsels, and observe, in divers Places, every Day in the Year, the Changes of Weather, the different Seasons, the Diversity and Shifting of the Winds, the State of the Barometers and Thermometers, as well as Hygrometers; determining the Differences of Moisture and Dryness, Heat and Cold; the Situation of Places, the particular Kind of Diet, especially that which coincides with epidemic Diseases; what Symptoms these are attended with, what their common Event is, what Medicines are salutary, and what noxious.



Of distinguishing one DISEASE from another.

THE Method of distinguishing the various Kinds of Fevers is prefixed before the Account of these Diseases, and therefore is omitted in this Place. I shall therefore proceed to the most frequent and common Distempers of a different Sort, especially those that seem nearly allied to each other, and for that Reason more

more liable to be mistaken; which may mislead the Practitioner into the most fatal Errors.

I shall begin with *Hæmorrhages*, and particularly Spitting of Blood, or an *Hæmoptysis*; which is a Rejection of florid Blood from the Lungs. This should be carefully distinguished from Bloody Spittle, which proceeds from the *Oesophagus*, *Fauces*, and Nostrils, and is rather brought up by hawking than by coughing; besides, it is not so copious, is mixt with Phlegm, and is of an obscure bloody Colour. Likewise a true *Hæmoptysis* may be known from that Spitting of Blood, which proceeds in a smaller Quantity, from a Disorder of the Vessels of the *Apera Arteria*, and is brought up with coughing, and commonly attended with itching, and a salt Taste. An *Hæmoptysis* differs greatly from a vomiting of Blood, because in the former the Blood is thin, very florid, arterial, and not brought up without labour and straining; whereas in a vomiting of Blood it is brought up without coughing, thick, coagulated, and black, and chiefly proceeds from the internal Veins of the Stomach. Neither is vomiting of Blood of one single Species, but as it differs with regard to its Causes, for it requires a different Method of Cure. One Kind proceeds from a corroding Caustic, contained in the Stomach, as in Poisons and violent Emetics; another Sort arises from an impetuous Motion of the Blood, brought from other Parts to the Vessels of the Stomach, which are easily burst, as is the Case from a Suppression of the usual sanguineous Evacuations: This Kind of Vomiting generally observes some stated Periods.

In the Kinds of *bloody Urine*, one proceeds from a rough Stone, lacerating the *Urethra*, or its Vessels, which is not very common, even to nephritic Persons; and then but a small Quantity of Blood is voided. But if it is attended with a violent *Impetus* of the Blood, and flows violently to the Kidneys from other Parts, it is generally without Mixture, and without any particular Complaint or Sensation; and when it separates from the Urine, is not red, but of a brownish yellow Colour. A Disorder not unlike this attacks Persons advanced in Years, who are full of Blood and Humours, but often without any Danger.

The *Flux of Blood*, which sometimes happens to pregnant Women, without any Danger to Health, ought to be distinguished from that which threatens Abortion. If it only happens periodically for three or four Months, then it is salutary; but if the Flux be large, and proceeds from the Vessels of the *Uterus*, it is dangerous both to the Mother and *Fætus*. If the Flux is violent, it shews a total Separation of the *Secundines*, and that Abortion will follow; if it be moderate, the *Fætus* may be saved. If this Flux corresponds with the
Period

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Period of the *Catamenia*, and the *Os Uteri* is closed and without Pain, the Flux does not proceed from thence.

Moreover, a Flux of the Piles or *Hæmorrhoids* is to be well distinguished from a Dysentery, since they both agree in this, that in each Disorder the Blood is mixed with the Excrements. In the Piles the Blood flows without any Pain, or Spasms, and is sometimes critical and healthy; on the contrary, a Dysentery is attended with the most violent Spasms and painful Gripes, and the whole Body is in high Disorder; especially if the small Intestines are affected: for then, on the first Days there are Vomiting, Hiccup, Anxieties of the *Præcordia*, Loss of Appetite, and great Weakness. The *White Dysentery* differs little in its Nature from the red; in the white, little Blood comes away, but great Quantity of *Mucus* is excreted; but in the red the Blood is more copious, with small Pieces of Films, or fleshy Fibres.

We now come to *Pains*, of which those of the Head are most common. If the *Head-ach* is caused by a more impetuous Congestion of Blood in the Head, with Heat, Redness, and Swelling of the Face, and a great Pulsation of the Arteries of the Neck and Temples; the Pain and Heat sometimes extend as far as the Bulbs of the Eyes, with Coldness of the Extremities. If the Head-ach is inveterate, and the Offspring of venereal Contagion, it is generally more violent in the Night, is fixt to a certain Part, and the Skin is often raised by a Kind of Swelling. Besides, the Cause of a Pain in the Head often lies in the external Parts of the Skull and *Pericranium*; for if it is in the Membranes of the Brain, it is attended with a *Vertigo*, Redness of the Eyes, a *Stupor*, Oblivion, Difficulty of Hearing; and even a Palsy, or an Apoplexy precedes or follows it.

Another Cause of the *Head-ach* is an Effusion of *Serum* and Blood from the Vessels into the Sinuosities of the Bones of the Forehead; in this Case the Pain is obstinate, sharp, fixed, and situated in the Bottom of the Forehead, and above the Eyes, never ceasing Night or Day. Sometimes the Head is disordered from Crudities in the Stomach, which appear from Belching, Inflammations, and Spasms of the *Primæ Viæ*, and the Pain is increased by flatulent Food, but is lessened by vomiting and evacuating Stomachics. Another Cause of *Head-ach*, but less known, is the extravasated *Lympha* in the Ventricles of the Brain, which stagnates and is not carried off by the *Infundibulum*, or pituitary Gland; in which Case the inward Parts of the Head are continually in Pain, which cannot more certainly be eased than by abstaining from Drink, and taking things which evacuate *Serum*, or Diuretics, in chachectic and cacochymic Disorders.

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The Heat of the *Cardialgia* exceeds all others for Sharpness. Its Seat is the upper Orifice of the Stomach. Sometimes the Cause of it lies in the Stomach, and is a sharp, caustic Matter, as in Case of Poison; in the *bilious Passion* or *Dysentery* it proceeds from a very sharp caustic Bile. Another *Cardialgia* proceeds from a Suppression of the usual sanguineous Evacuations, which regurgitate to the nervous Membranes of the Stomach. The Cure consists in Bleeding and Cupping: But when it proceeds from a sharp caustic Matter, the Pain must be appeased by Demulcents, oily temperating Medicines, Asses Milk, or a saturated Infusion of Camomile Flowers with Cream, as also absorbent Powders. A *Cardialgia* should be well distinguished from a painful Inflation of the Stomach, when it is wonderfully distended with Wind. In this Disorder the Pain is under the spurious Ribs, chiefly on the Left Side, and under the Pit of the Stomach towards the Right; the Tumor is like a Bladder distended with Wind, and is not uncommon; it brings on a great Difficulty of Breathing with Anxiety; it is the greater the more the *Diaphragm* is thrust upwards by the distended Stomach, and hinders the Expansion of the Lungs. This Disorder is most common to sucking Infants, when the Milk stagnates in the Stomach, and being coagulated and corrupted is rarified into Wind. It is pretty common to hypochondriacal Persons, especially if they eat too freely, for by Indigestion a great deal of Wind is generated.

It is likewise necessary to distinguish the Pain of the *Colic*, from that of a *Stone* descending by the Ureters; for in the Stone of the Kidneys there is a deep pressing Pain, which seems to be fixt in the Loins, attended with a little Shivering; it likewise is accompanied with Vomiting and Pains in the Belly when the Stone is passing downward through the Ureters; then the pain extends to the Region of the *Os Ischium*, and brings on a Stupor of the Thigh of the affected Side: There are likewise frequent Inclinations to making Water, attended with a Strangury, and Gravel often comes away. But the Pain of the Colic is otherwise; for then the Pain and Gripes are more about the Navel, shifting from Place to Place, and the Belly is often distended with Wind. But it often happens that the Colic is nephritic, which may be known from grievous Pains in the Belly, Costiveness, Vomiting, Head-ach, Coldness of the Extremities, a *Stimulus* to make Water, till the Fit being ended Gravel comes away. The Colic which torments Hypochondriacs lies in the *Hypochondria*, and the left Side, is apt to swell from Wind in the Flexures of the *Colon*, and this Pain returns oftener than the Colic.

If the Wind is the Cause of the Pain of the Intestines, then there is a manifest Inflation of the *Abdomen*, sometimes so great as to cause a Wind Rupture in the Region of the Navel. When Persons are subject to this Disease it proceeds from a hasty Refrigeration of the *Abdomen*, or the Feet, or from feculent Drink, or flatulent Food, especially if cold Liquor is drank after it. As many Persons who are troubled with the Gravel are liable to a flatulent Colic, the nephritic Colic is often confounded with it.

But if the *Pain of the Intestines* is attended with Flatulencies, great Anxiety, and a tensive Pain of the Back, with Costiveness which returns upon the slightest Occasion, and the Face is cachectic, then the Cause of the Disorder generally lies in the *Viscera* of the *Abdomen*, thro' which the Blood does not circulate readily and freely, but stagnates in the Volume of the Intestines, and finding no Exit through the hæmorrhoidal Vessels, continues between the Membranes of the Intestines, distending and teasing them; whence proceeds that Colic which is called convulsive, because the nervous System is grievously afflicted thereby. This Stagnation of the Blood, if it proceeds from a Suppression of the Hæmorrhoids, produces a violent Pain in the Intestines, which is said to be hæmorrhoidal; and if it proceeds from an Irregularity of the *Menses* in Women, the Blood returns back to the Volume of the Intestines, and produces Gripes, which are called an hysterical Colic. Another Kind of Colic is the bilious, and is common to Men of choleric Constitutions, prone to Anger and of great Sensibility. This is generally attended with Vomiting, the Head-ach, or a *Diarrhæa*, and because the free Descent of the Bile to the Intestines is hindered by a spasmodic Constriction, it regurgitates to the Habit of Body, and produces a yellow Colour in the Face.

It is likewise necessary to distinguish a convulsive Colic from the other Kinds; for it disturbs the nervous and membranous Parts of the whole Body, by consent, in a terrible Manner, in so much that a violent Spasm is spread thro' the whole System of Nerves, and then not only the Stomach and Intestines are drawn upwards and downwards with obstinate Costiveness, but the Muscles of the Belly and Navel are drawn inward. If the Nerves of the Lungs are affected by the Violence of the Spasm, the Breathing is very short and difficult, with a strong Motion of the *Thorax*. When the Disorder increases the Membranes of the Brain and Nerves are affected, whence a *Vertigo*, *Scotomia*, slight Delirium, Watching, and great Coldness of the extreme Parts, with a most violent Agitation of the Feet and Arms, which not seldom ends in a Palsy of these Parts.

Of distinguishing one DISEASE from another. 13

Workers in Metal are greatly subject to this Disease, especially those that are concerned in melting Lead, and draw the Steams in with their Breath. Likewise the Scorbutic and Cachectic are liable to it, as well as those in whom the hæmorrhoidal Flux is suppressed, or irregular, or who have had an Ague imperfectly cured by Astringents. Sometimes it proceeds from Worms, or from a Stone in the bilious Ducts. Hence we plainly see the Fault is not material, moveable, or easily corrected or evacuated, as in the flatulent and bilious Colic, but is rather in the nervous membranaceous Parts, which are readily brought into these spastic Motions. Sometimes the *Cardialgia*, and convulsive Pain of the Intestines, in very sensible Bodies, proceeds from strong Affections of the Mind, Terror, frequent Anger, spirituous Liquors, and the like.

There are great Mistakes committed with Regard to the *Gout* and *Rheumatism*. The Pain in both is spastic, and infects the membranaceous Parts with Redness, Heat, Pain, Swelling, and Loss of Motion; but the arthritic Pain proceeds from a sharp tartareous *Serum* in the Joints, and the Rheumatism is derived from a serous salino-caustic Matter, situated externally in the Membranes of the Muscles and Ligaments of the Joints. In the Gout, the mucous Glands of the Joints and glandulous Ligaments contain the arthritic Matter: On the contrary, the stagnating acrid *Serum* of the Rheumatism too plentifully congested in the Vessels from the Blood, is collected between the Interstices of the Membranes and Muscles. Whence the Reason appears why the Cure of the Rheumatism is more easy than that of the Gout, and why Topics will mitigate the Pains of the former, and not of the latter.

The *Gout* must likewise be distinguished from *venereal* Pains; for the Gout is more violent in the Day, the *Lues venerea* in the Night; the Gout has also a febrile Commotion, the other not. The Gout has likewise stated Times, and is exasperated with sharp Medicines, Mercurials, and the like; whereas the *French* Disease is mitigated by these. There is besides a peculiar Difference between Pains of the Joints, of the Legs or Feet, with Tension, Stiffness, Imbecillity of moving, and raging epidemically, and true arthritic Pains. At some Times, and in some Constitutions of the Air, we frequently meet with Pains in the Legs, of which some are tense, others obtuse and dull; others pungent, lying among the Bones of the *Tarsus* and *Metatarsus*, with Immobility, *Stupor*, and Rigidity of these Parts; which Pain is increased by Motion. Those are subject to it who are bled in the Foot, and expose themselves to cold Air, after which comes on Weakness of the affected Member, and then Pain, which
continues

continues for some Months, and is mistaken for the Gout; but there is no Fever, nor Swelling, nor Redness, nor Heat, neither in the Joints, nor in the *Periosteum*; and therefore cannot be called the Gout.

Let us now proceed to those *convulsive* and *spasmodic* Disorders, called *Coughs*. Of these are several Kinds. If the Cause of the Cough is in the Lungs, there is a Difficulty of Breathing, which is increased upon Motion, or Agitation of the Body or Blood; likewise there is often a shrill Voice, or pressing Pain in the Breast and a Hoarseness. If it be dry, and continues long, there are generally hard Tubercles, or *Vomicae*, full of Matter, and the Cough is consumptive. But if it be moist, and great plenty of viscid Matter is brought up, it is a Sign there is a Collection of Matter in the Cavity of the Lungs. In this Disorder there is a Difficulty of lying on the affected Side, and pure Matter, or mixt with Blood, is brought up, which leaves no room to doubt that the Lungs are affected.

The *Tussis Stomachalis*, or Stomach Cough, is sometimes moist and sometimes dry: If moist, a thick and copious Spittle is brought up after Meals, generally with Vomiting; the Cough is more violent after Pectorals and sweet Things, and is troublesome in a Morning. It is attended with spasmodic and flatulent Disorders in the Abdomen, neither do the Excretions by Stool continue regular. In a *convulsive* or *hooping Cough*, that is violent and dry, the Cause is chiefly in the nervous Coats of the Stomach, and there is a violent Concussion of the whole Thorax with a deep Sound; this is greatly increased after cold Drink or Acids. In this obstinate Cough the *Hypochondria* are generally disordered, or there is a scorbutic and salt Diathesis mixt with the Blood; wherefore this Cough is not unfrequently attended with a miliary Fever. If the Matter lurks in the *Duodenum*, which is often the Case in intermitting Fevers, especially Tertians, as also in hypochondriac Patients, then acid Eructations and Flatulencies manifest themselves, especially in the Paroxysms after Shivering, with a bilious and acid Vomiting. Children are frequently troubled with Hooping Coughs, partly because the System of their Nerves is very prone to spastic Convulsions, and partly because acid and bilious Crudities abound in their Stomach and *Duodenum*. The coughing Fit often ends in Vomiting, sometimes is quite dry, and one would think that they were in Danger of being strangled.

The *Asthma* is a common Disease, and has various Causes, which are variously seated, and make divers Kinds of this Disease. The common Cause is in the Stomach, and then it is a *flatulent Asthma*; for the Stomach being inflated, hinders the
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the free Play of the Diaphragm. This is frequent in Hypochondriacs, who have a Weakness of the Stomach, from flatulent Food, which is mitigated by Vomiting. A convulsive Asthma is greatly different from that which is *humoral* or *sanguineous*; for it is periodical, and comes on at certain Intervals, chiefly in the Night; the Breathing is sometimes so difficult, that the Patient cannot lie down without Danger of Suffocation. There is often a cold Sweat, which continues for twenty Hours and more, and brings on a Fainting. A constrictive Compression of the Thorax is generally perceived, which often extends to the Neck. This Disease is generally accompanied with a bad State of the *Viscera* of the *Abdomen*, especially of the Liver, whence a *Cachexy* arises. But if the Asthma proceeds from a polypous Concretion in the Vessels of the Heart, then there is a Palpitation of the Heart. Lastly, the Cause of the convulsive and suffocating Asthma, is a great Extravasation of Water in the Cavity of the Thorax: Out of the Paroxysm there is a fixed Pain in the Side of the Thorax, where the Water is contained, and the Foot of the same Side is apt to swell, or both; and the Paroxysm is long and violent, with great Anxiety, but without a Cough, and is often fatal.

There is a very notable Difference between a *convulsive Asthma* and a *suffocating Catarrh*; for this is a kind of Palsy affecting the Nerves, which serve for Respiration; and comes on unawares, with great Anxiety and Wheezing: The Face is swelled and looks red, and Suffocation is at hand. A convulsive Asthma is a periodical and chronical Disease; but a suffocating Catarrh is more properly reckoned an acute Disease. In this there is perceived a constant Afflux of Matter, which is wanting in the Asthma; likewise a great Loss of Strength more commonly attends a suffocating Catarrh, than a convulsive Asthma. A suffocating Catarrh is more common to Infants, to the weak, and to very old Persons; especially when *Exanthemata* are driven back, such as the Small-Pox, Measles, *Tinea Capitis*, *Achores* of the Face, the Itch, and the like.

We come now to the *Apoplexy*, which is like a *Syncope*, for there is in both a Loss of all the Senses, and yet there is a remarkable Difference; for in this the Pulse and Breathing are not perceptible, the Face is pale, and the Body is cold; but in the Apoplexy the Breathing continues, the Face is often red and florid, the Pulse still beats, and sometimes very strong. But the Difficulty is greater to distinguish the spurious from the true Apoplexy. The spurious is frequently an Hysteric Symptom, and proceeds from the Violence of the Spasms in the *Abdomen*, in which the Blood becoming redundant from the Stagnation of the *Menses*,

Menses, is carried to the Brain with Force, stops in its Vessels, and intercepts all Sense and Motion, except of the Pulse and Breath. It is commonly taken for a Syncope, or an hysterick Epilepsy, but not rightly: It is seldom fatal; for when the Stricture is relaxed, or the Patient is let Blood, it easily abates. A true Apoplexy is more dangerous, which, from a bursting of the Blood or Serum from the Vessels, is often fatal; likewise the complete Apoplexy is to be distinguished from the partial; for the former proceeds from the bursting of the Vessels of the Brain, the latter from their too great Distension, and the Stagnation of the Blood therein, which frequently induces a Palsy and a Debility of the Senses, but does not kill.

The Palsy is likewise to be distinguished into the true and false; the former has its Seat in the Brain, or the Beginning of the spinal Marrow, and takes away almost all Sense and Motion. But the spurious is milder, and has not taken so deep a Root in the Brain, but in some certain Nerves belonging to particular Parts, and only hurts the Sense and Motion. This is often the Consequence of the Colic, and the more grievous cardialgic and spasmodic Affections, especially if there be a Stagnation of the Blood in a Plethora, and being transferred to the Nerves and Muscles, which move the Hands and Feet, deposits there a viscid Serum, which, lodging on the nervous Membranes, induces an Impotence of Motion, the Sense of Feeling being yet unhurt.

An *Epilepsy* must be distinguished from *Convulsions*. For in the former the Membranes of the Brain are affected, in the latter the Membranes and Nerves of the spinal Marrow are more concerned; nor are the Thumbs so greatly contracted, though the Limbs are very forcibly convulsed. Convulsive Motions likewise greatly affect Boys about fourteen Years old, from violent Anger, sudden Terror, sudden Refrigerating of the Body, or Worms; and there is such a strange Distortion and Shaking of the Limbs, that it is often attributed to Witchcraft. The Mind in some is likewise disturbed with various Phantasms, if not opportunely and readily cured, which will sometimes come on twenty Times a Day, or oftener. The Epilepsy seems connected with certain Phases of the Moon, and is not so frequent in Adults, generally ceasing about the Time of Puberty. Lastly, a *Catalepsy* differs from an Apoplexy, because the former comes on suddenly, and keeps the Member quite stiff, and in the same Posture, as at the Time of Accession. In both there is an Abolition of all the Senses with a Stupor and Sleep.

Of the PULSE.

THAT oscillatory Motion, or Beating of the Arteries, which we commonly call the Pulse, is occasioned by the Blood's being first thrown into them by a quick, strong Effort of the Left Ventricle of the Heart, and then moving on from larger into more contracted Vessels, whereby the Resistance is more and more increased, till in their capillary Terminations it becomes greatest of all. In Consequence of this Resistance, the Arteries are distended, and this Distension, or Diastole, as soon as the distending Cause ceases, that is, when the Flux of Blood into them is suspended, must be succeeded by a Contraction, or Systole, because the Arteries chiefly through their Elasticity, but partly by their muscular Contraction, restore themselves; whereby the Blood is urged into the venous System, the semilunar Valves at the Mouth of the Aorta hindering its Reflux into the Heart.

With regard to Motion only, there are but four Kinds of *Pulse*; *great and little, quick and slow*. When *Quickness* and *Greatness* are joined together, it becomes *violent*; and when it is *little and slow*, it is then called a *weak Pulse*. The Pulse is also said to be *frequent and rare, equal and unequal*, but these are not the essential Affections of Motion; Frequency and Quickness are often confounded with each other.

A *Pulse* is said to be *hard* or *soft* with regard to the *Artery*, according as it is *tense, renitent*, and *hard or flaccid, soft or lax*; for the Disposition of the Arteries contributes greatly to the Change of the Pulse; wherefore it sometimes happens that the Pulse in both Arms is not alike, which is very common in an *Hemiplexy*. Add to these, a *convulsive Pulse*, which does not proceed from the Blood, but from the State of the *Artery*, and is known by a tremulous subsultory Motion, and the Artery seems to be drawn upwards; this, in acute Fevers, is a Sign of Death, and is properly said to be the Pulse of dying Persons, which is likewise generally *unequal and intermitting*.

A *great Pulse* shews a more copious Afflux of Blood to the Heart, and from thence into the Arteries. A *little Pulse* the contrary.

If the Weight of a Person be 160 Pounds, then 80 of that will consist of Fluids. If he be healthy, the Pulse will beat 70 Times in a Minute, or about 4200 in an Hour; whence the Blood is said to circulate three Times in an Hour, and 72 Times in 24 Hours.

The *Pulses* of Persons differ according to the Largeness of the Heart and Vessels, the *Quantity* and *Temperies* of the Blood, the elastic Force of the Canals, as also with regard to the *Sex, Age,*

Seasons, Air, Motion, Food, Sleep, Watching, and Passions of the Mind. The *Pulse* is larger and more quick in *Men* than *Women*; in the *bilious* and *sanguineo-bilious*, than the *phlegmatic* and *melancholic*. Those who are *lean*, with tense *Fibres* and large *Vessels*, have a greater and stronger *Pulse* than those that are *obese*, with lax *Fibres* and small *Vessels*; whence they are more healthy, robust, and apt for Labour. In *Children* the *Pulse* is quick and soft. In *Adults* greater and more violent. In the old it is commonly great, hard, and slow. *Labour, Motion, and Exercise* of the *Body* increase the *Circulation* of the *Blood*, the *Excretions*, and particularly *Perspiration*; *Rest* renders the *Circulation* slow and weak; *intense Speaking* increases the *Circulation*, and consequently renders the *Pulse* large and quick. In *Watching* the *Pulse* is more evident, in *Sleep* more slow and languid. After drinking hot Things, such as *Coffee, Tea*, or hot *Bath Waters*, as well as after *Meals*, the *Pulse* vibrates more quick. But nothing produces a greater Change in the *Pulse* than *Affections of the Mind*; in *Terror* it is unequal, small, and contracted; in *Joy* frequent and great; in *Anger* quick and hard; in *Sadness* slow, small, deep and weak, and in *intense Study* languid and weak.

With regard to the *Air*, when after the Predominancy of a *West* or *South Wind*, it becomes *North* or *East*, the *Pulse* is stronger and larger; and when the *Quicksilver* rises in the *Barometer*. But when the *Atmosphere* is *dense, humid, rainy*, with a long *South Wind*; as also, when the *Life* is *sedentary*, the *Sleep* long, and the *Season autumnal*, the *Pulse* is languid and small, and the *Perspiration* decreased. In *May* it is great, and sometimes violent; in the *Middle of the Summer* quick, but weak; in the *Autumn* slow, soft, and weak; in the *Winter* hard and great.

A *drastic Purge* and an *Emetic* render the *Pulse* hard, quick, and weak, with Loss of Strength; *Chalybeates* and the *Bark* render it great and robust, and the *Complexion* lively. *Volatiles* amplify and increase the *Pulse*. *Acid* and *nitrous Remedies* refrigerate the *Body*, and appease the *Pulse*. *Opiates*, and the like, render it small and weak, and decrease the *Elasticity* of the *Solids*, whereas Things abounding with a *friendly Sulphur*, increase the *Pulse* and the *Strength*; but *Poisons* render it small, contracted, and hard. When the *Quantity* of the *Blood* is too great, bleeding raises the *Pulse*; which is also rendered violent by *Baths*, especially if they are too hot, whence a *Palpitation* of the *Heart*, and a *Pain* in the *Head*. Likewise *Pediluvia* used at *Bed-time*, increases the *Motion* of the *Blood* and *Arteries*.

An *intermitting Pulse* is, for the most Part, full of *Danger*, and often fatal, though sometimes it happens otherwise, especially

cially in *hysteric Cases*, and the *Colic*; sometimes it proceeds from *Worms* or a *Polypus* in the Heart. Sometimes it attends *scorbutical Cases*, without any great Inconvenience, and young Women whose *Menses* are irregular.

Though in all *Fevers* there is a *frequent Pulse*, yet it is not always a Sign of a Fever; for in *Children* and *bilious Constitutions* it is mostly so, as also after *Bathing* and *Sudorifics*, and in *Passions of the Mind*; likewise after an *Epilepsy* and *Drunkenness*, the Pulse is always more frequent, even without a Fever. Therefore Enquiry should ever be made, whether the Frequency of the Pulse arises from any external Cause, and whether there are any other essential Signs of a Fever, as *Horror*, and a *Refrigeration of the Extremities*. But, which is seldom taken notice of, the Pulse is not *quick* in all Fevers, but more *renitent* and *hard* than the natural; and there are few Fevers in which the Pulse is not harder than common, malignant sweating Fevers excepted, such as the Sweating Sickness, wherein it is *undulous*, with the greatest Loss of Strength. Fevers in general are attended with an *universal Spasm* of the nervous and vascular System, including the Tunics of the *arterial Vessels*, which consist of nervous and muscular Fibres. This *spastic Stricture* of the Fibres, contracting the capillary Vessels, renders the Pulse more quick, and heats the Blood by Attrition, whence proceeds a Heat of the Body.

In the *Beginning* of a *continual Fever*, or *Fit* of an *Intermittent*, the Pulse is generally tense, small, and frequent, which increases in Proportion as it proceeds to the *State*, when it is strong and violent; but in the *Decline* the Tension and Quickness remit, and *Perspiration* and *Sweat* begin to succeed. If, on the *critical Days*, that is, on the 7th, 9th, and 11th, the Pulse is small and quick, with Horror and Coldness of the Extremities, or quick and violent, with a thick, watery, and thin Urine, it shews the *Spasms* of the Extremities are increased, and the Blood forced with Impetuosity to the Head, whence a fatal *Phrensy*. The *worst Pulse* is little, frequent, and weak, as it shews the greatest Loss of Strength, and that the internal Inflammation is tending to a Mortification, and if it is unequal and intermitting withal, it shews commonly that Death is at hand.

In the *Beginning* of a *Quartan* the Pulse is small, hard, frequent and unequal: In the *State* of a *tertian*, and *burning Fever*, violent. In a *continual Fever* it is great and quick, and indicates bleeding. Before the Eruption of the *Small-Pox* and its *secondary Fever*, and in the *Measles*, it is quick, which seems to mend till the Time of Suppuration. In *malignant*

and *spotted Fevers* it is small, weak, and contracted, with great Loss of Strength; but becoming soft and undulous, with a copious Sweat, and seemingly good Urine, without a Remission of the Symptoms, portends Death. In *inflammatory Fevers* with Pain, it is hard, and frequent, and sometimes great. In *catarrhal* and *slow Fevers* the Pulse increases in the Evening, and becomes more quick.

In *Madness*, *Phrensy*, and *Melancholy*, it varies greatly, and is quick, slow, languid, robust, or unequal; but the Pulse in the Head generally beats strongly, with a distensive and lancinating Pain. In an *Epilepsy*, *Apoplexy*, and *Hemiplexy*, it is hard, and frequent, and sometimes large; but, if in the *Palsy*, *Lethargy*, *Coma*, and Disposition to the *Syncope*, it is soft, rare, and languid, and at last becomes so slender as to be hardly perceived, with a cold Sweat, it is fatal. When the Pulse is quick, languid, and unequal, as also intermittent, it shews a Palpitation of the Heart, and a *convulsive Asthma*.

Before an *Hæmorrhage* the Pulse is quick, small, and somewhat hard, but when that breaks out, the Quickness and Largeness are increased. *Spasmodic*, *hypochondriac*, and *hysterical Affections*, *Colic*, and *Gravel Pains*, Pains in the Head and external Parts have a quick hard Pulse, which, when it begins to grow soft and large, shews the Spasms are a little appeased, and the Motion of the Blood become natural. In a *Dysentery* the Pulse is generally frequent and slow; if, with a Fever, it is large. In the *Lues Venerea*, *Scurvy*, *Cachexy*, and *Dropsy*, the Pulse is languid and weak.

That excellent Physician, *Celsus*, calls the Pulse *res fallacissima*; and from all that has been said above it may be observed, that the surest Conclusions are, for the most Part, to be drawn from the Pulse, not considered absolutely, but relatively; that is, from a morbid Pulse compared with itself in a sound State, or with itself at different Times in the same Disease; the Physician ought ever to make Allowance for Diversity of Circumstances; and not lose Sight altogether of other Signs about the Patient, besides the Pulse.

I ought not to quit this Subject, without giving some Account of a very considerable Improvement and Enlargement of the Doctrine of Pulses made not many Years since by *Francis Solano*, an eminent Physician of *Antiquera* in *Spain*, published in a Work of his, entitled, *Lapis Lydius Apollinis*. His Discoveries are chiefly these:

1. The double striking, or rebounding Pulse, often presages critical Hæmorrhages by the Nose in acute Diseases, and that such Discharges are the sooner to be expected, the oftener the double

double Stroke recurs, and that the Effusion of Blood will be the greater, the more the Vigour of the second Beat of the double Pulse exceeds that of the first.

2. That the intermitting Pulse, in like Manner, foreshews a critical Diarrhœa, which will be the more copious the greater and more frequent the Intermission is.

3. That the Pulse, which he calls *Pulsus inciduus*, and explains to be an unequally rising Pulse, portends critical Sweats. In this Kind of Pulse, there are sometimes two, sometimes three, and sometimes four Strokes, joined together. Its Peculiarity is, that every succeeding Stroke rises above that immediately preceding, both in Strength and Fulness: So that, if there be four such joined together, the second rises above the first, the third above the second, and the fourth above the third. The critical Sweats always come on the more plentifully, the greater Number of such Strokes is joined together, and the more each following Stroke exceeds that immediately preceding in Strength and Fulness. Dr. Solano adds, that he always finds this Species of Pulse to be soft, except in one Instance, in which it being hard, he taking other Symptoms about the Patient into Consideration, prognosticated a critical Jaundice, which came on as he had foretold.

Repeated Observation and Experience here in *England*, as well as in other Countries, have abundantly confirmed the Truth of these Discoveries concerning Prognostics from the Pulse, and they are accordingly to be regarded as a most noble Addition to the general Doctrine of Signs in acute Diseases.

Dr. Stedman makes the primary or most simple Division of Pulses to consist of seven Kinds, viz. the *Magnus* and *Parvus*; *Fortis* and *Debilis*; *Frequens* and *Rarus*; and the *Plenus* or *Plethoricus*.

All these Pulses, or the most Part of them, are sometimes to be met with in the different Stages of the same Disease; but there are other Diseases to which particular Pulses are more peculiar. The *Magnus* frequently attends a *Stupor*, *Coma*, *Vertigo*, *Lethargy*, and other Disorders of the Head, where there is little or no Fever. It is likewise not uncommon in *Hypochondriacism* and *Melancholy*, and often presages a *Mania*. In this Respect the hypochondriacal Disorders, in Men, generally differ from the hysterical; as the latter are commonly attended with the *Parvus*: And, in general, the *Magnus* is rarely to be met with in Women; their Manner of Life and Habit of Body rendering the Sex more liable to the opposite Pulse.

The *Parvus* is to be found in most Part of Fevers, either through the whole Disease, or in some of the Stages. Towards the End of inflammatory Fevers, this Pulse is an unfavourable Sign. It is a pathognomic Sign in hectic Fevers. The low, malignant, bilious, and pestilential Fevers, are commonly attended with this Pulse throughout. It is almost a constant Concomitant of the *Phthisis pulmonalis*. It is likewise common with Women, who have weak Nerves, and who are subject to sudden Tremors, Palpitations, and to the well known Tribe of hysterical Symptoms. In general, this Pulse is more frequently met with than any other arising from morbid Causes.

The *Fortis* commonly introduceth inflammatory Fevers, especially those proceeding from Inflammations in the *Thorax*. This Pulse, more than any other, indicates Bleeding; being a certain Indication of an increased Velocity in the Circulation, and frequently of a cohesive State of the Blood. But though, in inflammatory Fevers, attended with this Symptom, we bleed with Safety and Advantage; yet there are Fevers, in some Periods of which we meet with this Pulse, and then ought to be cautious of Bleeding. This is the Case in Fevers of the remitting and intermitting Kind, where the *Pulsus fortis* precedes critical Sweats.

The *Debilis* always indicates a diminished Velocity in the Circulation, and is, of all Kinds, the most dangerous; and the more so, if, with the diminished Extension of the Artery, the Pulse fall considerably below its standard Number: For the Blood, not being sufficiently agitated, soon loseth its natural Texture. This Pulse is frequently unequal, and interrupted.

Supposing then the Artery, when beating so slow, to have lost, in the Diastole, one-tenth of its natural Diameter; and that, in the Systole, there remained seven-tenths; then was the Velocity of the Blood in the Disease to that when in Health, as twenty-three to fifty-one. Had there been no Difference in the Dilatation of the Artery, the Proportion, depending only on the Number of Pulsations, would have been as eight to eleven. But though we suppose the Artery to have lost only so much of its Extension as, with the diminished Number of Pulsations, to have made the Circulation in the Disease, to that in Health, as thirty to fifty-one; there is Reason to believe that even this would have been insufficient to preserve the proper Texture of the Blood for any considerable Time.

It

It may be observed that, though the Number of Pulsations in the *Parous* may sometimes balance the Loss of Dilatation in the Artery, so as to preserve the same Degree of Velocity in the Circulation; yet this Pulse seems always to indicate, either the Weakness, or the Labour and difficult Action of the moving Power.

The *Plenus* is frequently met with in Women, when the periodical Return of the *Menstrua* approacheth; particularly in those who menstruate with Difficulty. This Pulse is likewise to be found in People of a thin Habit, and pale Complexion, subject to Hæmorrhages, whether from the Nose, Lungs, or hæmorrhoidal Vessels.

The *Plenus*, not being distinguished by any Increase or Diminution of Pulsations, may be attended either with a quick, or slow Circulation.

Having thus proposed the great or primary Division, it will be easy to refer the rest of the Pulses to it, so as to distinguish what hath been called the compounded Pulses. Thus, the *Mollis* and *Durus*, *Celer* and *Tardus*, *Acutus* and *Obtus*, *Dicrotus*, *Intermittens* or *Intercurrens*, may fall in with any of the Pulses described above.

An Artery being but a very little more or less superficial gives the Idea of a strong, or of a weak Pulse: Hence it is, that, in the same Person, we often feel the Pulse in one Arm different from that in the other; and *Boerhaave* justly observes, that the Pulse is frequently deceitful in fat People*.

When the Pulse is not distinct, the most certain Method of judging of it is, to press the Fingers so much that the Circulation in the Artery may seem to be stopped; and, raising the Fingers gradually, let the Touch at last become quite superficial. By this Method we may judge with more Certainty of the Action of the Artery, than by an uniform Pressure of the Fingers: And as, in feeling the Pulse, when our Fingers are cold, we are apt to believe the Pulse to be weaker than it really is, it is of some Consequence to preserve the natural Heat of the Hand.

It hath been believed, that there is an exact Proportion between the Quickness of the Circulation and animal Heat; or that the Degree of Heat increaseth in Proportion to the Attrition, and *Momentum* of the Blood; and the Pulse, being the only Indication of Changes in the Circulation, hath likewise been believed to indicate greater or less Degrees of Animal Heat†.

* *Boerhaave Institut.* § 960.

† *Boerhaave Institut.* § 968.

24 *Of the Consent of the nervous Parts in general.*

The Pulses hitherto described are meant as indicating a morbid State of the Body, and are supposed to refer to every Person's natural Pulse; for what is a natural Pulse with one Person, may indicate a morbid State of the Body with another. One of a gigantic Size, and of an athletic Habit, hath not naturally the same Kind of Pulse with a Dwarf; nor can either of these be supposed to have a Pulse equal to that of the other, without a Disease; and we often meet with People, seemingly of the same Habit and Constitution, who have nevertheless Pulses of different Kinds; from which it appears of what Advantage it is to be acquainted with the Constitutions of People in Health, to be able to judge with greater Certainty of the Nature of Diseases.

But, when one is said to have naturally a great or little, a strong or weak, a quick or slow Pulse, these are supposed to refer to an universal mean Pulse; an Idea of which every Physician must form to himself, from a frequent Examination of a Variety of Pulses. Thus, when *Boerhaave* says that the Pulse which is strong, great and slow, is of all Kinds, the best, we understand this as referred to an universal mean Pulse, or the Expression can have no Meaning: For where any Person's Pulse is said to be great, strong and slow, with respect to the mean or natural State of that Person's Pulse, then are we to understand these Characters of the Pulse as indicating a morbid State of the Body.

Of the Consent of the NERVOUS PARTS in general.

THE *Harmony and Sympathy of the nervous Parts*, is of very great Use in Physic; for without an accurate Knowledge of these, many Symptoms of Diseases can scarcely be explained, though it has not hitherto been sufficiently attended to.

It is to be observed, that the *nervoso-membranaceous* Parts are first the Membranes of the Brain and spinal Marrow, then the nervous Membranes, which invest the Organs of the Senses; the Eyes, Ears, Nostrils, Mouth, and Fauces; add to these, those which cover the Bones, Head, Teeth, Joints, and Muscles: Likewise the *Oesophagus*, Stomach, and the whole Volume of the Intestines, which is entirely nervous and membranaceous.

The same Consent obtains also in the whole System of the *biliary and urinary Ducts*, the Bladder, Glands, and Skin, which last is a Web of tendinous and nervous Fibres. In

all

all these Parts there is a wonderful Connection, Consent, Sympathy, and Communication of *Motions* as well as *Hurts*, when they are affected by any violent Cause; all which is by the Intermediation of the Nerves.

When the *Nerves* are molested, there arises a *Sense of Pain*, with a Stricture of the adjacent Parts, especially of the Vessels; whence the *Motions* of the Blood and Humours become irregular.

The *irregular Motions of the Mind* act directly on the nervous Parts, and produce great Disturbance in the whole Oeconomy of the vital and animal *Motions*, such as a violent Stricture and Contraction of the Parts, and again Resolution and Relaxation; to remedy which, Emollients, Lenients, and Sedatives are necessary.

A grievous *Concussion of the Brain*, without hurting the Texture of the Parts, will cause an Abolition of the Senses, a Falling, a *Nausea*, Vomiting, and Convulsions. Sailing in a Ship, or turning round swiftly, will produce a *Vertigo*, *Nausea*, enormous Vomiting, with great Anxiety, Paleness, Languor, Loss of Appetite, &c.

These Symptoms may be produced by an exceeding small Portion of Matter. For the *Smoke of Tobacco* in Beginners will cause great Anxieties, with cold Sweats, Paleness, Vomiting, and *Nauseas*. The *Effluvia* of Musk, and the like, will produce in some a *Syncope* and Oppressions of the Breast, which is cured by applying fetid Things to the Nose. Caustic poisonous Matter, conveyed to the nervous *Fibrillæ* of the wounded Skin, by the *Bite* of a *Viper*, *Scorpion*, *mad Dog*, or by an Instrument moistened with the Juice of white Hellebore, Oil of Tobacco, or an arsenical Liniment, will throw the nervous System into Commotions and spastic Strictures. Hence a Fever, Syncope, cold Sweat, Paleness, *Nausea*, Vomiting, Yellowness of the Skin, Convulsions, Alienation of the Mind, obstinate Costiveness, Suppression of Urine, high Anxiety, and Difficulty of Breathing. And here *Specifics* or *Antidotes* are necessary, if possible, to subdue the active Particles of the Poison.

Solid, rigid Bodies also produce in the Nerves grievous Symptoms: Thus a Needle, or Lancet, hurting a Tendon, produces a hard Tumor, an Inflammation with Shivering, a Fever, and Watching, and at length a Mortification and Death; the certain Remedies for which are *Emollients*. The cutting of Corns, when Persons are old and scorbutic, is often attended with terrible Consequences. A *Thorn under the Nail* will produce Pain, Tumor, Redness, a Pulsation of the Part,

26 Of the Consent of the nervous Parts in general.

Part, and a Fever. The Causes of a Mortification in extreme old Age, and a scorbutic Body, consist not only in the wounding the Nerves, but in the Constriction of the Nervous Membranes, whence a Stagnation of the Blood, and sphacelous Corruption.

The *Sting of a Wasp*, in some membranous Part, will sometimes produce terrible Symptoms, as will Hurts in the inward Parts, by the swallowing of a Needle, and the like.

But the *Stomach* has the most intimate Sympathy with all the rest of the Parts; for, let the Nerves be hurt where they will, the Stomach always suffers. Even a strong Blow on the Pit of the Stomach has been fatal. Nothing makes this more evident than the taking *Arsenic* and *corrosive Preparations of Mercury* and *Antimony*; *Cicuta aquatica*, and *Fungi* of various Kinds, as also *drastic Purges*, which alone cause the strongest spastic Contractions of the whole nervous System. Hence a *Cardialgia*, reaching to vomit, Hiccup, Anxiety of the *Praecordia*, Difficulty of Breathing, Constriction of the Diaphragm, Dryness of the Tongue and *Fauces*, unquenchable Thirst, Costiveness, Retention of Wind, Gripping, Looseness, a perpetual *Stimulus* to Urine, Coldness of the Extremities, cold Sweats, and Hippocratic Countenance, a trembling of the Limbs, an intermitting Pulse, a *Delirium*, Fainting, Convulsions, an Epilepsy; which are the general Symptoms of Poison, and arise from the Erosion of the Coats of the Stomach.

This is confirmed by the Symptoms of *hypochondriac* and *hysterical* Persons. For, if the Stomach is distended with Wind, and its Orifices contracted by a Spasm, the Nerves are vellicated or drawn, and there is a Tension in various Parts. The Nerves of the Lungs being thus affected, produce the highest constrictive Anxieties, Tremblings and Palpitations of the Heart, a frequent, hard, and contracted Pulse; if the Nerves of the Neck, there is a difficult Swallowing, and the Aliment regurgitates; if those of the Head, there is a *Vertigo*, and a *Scotomia*, a Pain in the Head, a Sense of Coldness, anxious Thoughts, an *Hemicrania*, Fear, Terror, and Despair. Likewise because the *Plexus* of the mesenteric and intercostal Nerves may be drawn into Consent, there are Pains of the Back, Gripes, a copious Flux of the Hæmorrhoids, Pain of the Joints, aqueous Urine, Costiveness, or a Diarrhoea, as well as Coldness of the Extremities; all which may be alleviated, if the Stomach and Intestines are cleared from Wind, and the Spasms appeased by Clysters, Baths, and Antispasmodics, and the acid, viscid, and bilious *Colluvies* carried off by gentle Laxatives, joined with bitter Balsamics.

The

The Consent of the Stomach, with the nervous Parts, may be likewise proved from the Paroxysms of intermitting Fevers, for they begin with Spasms in the *Primæ Viæ*, which being propagated, occasion all the Symptoms. It is not uncommon for Sadness and Melancholy to render a Person *hypochondriac*, the Seat of which is chiefly in the Stomach; likewise *Anger* will produce a *Cardialgia*, a Propensity to vomit; a *strong Desire* of returning to one's own Country has been observed to hurt the Causes of Digestion, produce a *Cardialgia* with *Languor*, whence the whole Body was emaciated. In a *Vertigo*, proceeding from a Consent of Parts, if a Person is fasting, it may be mitigated by eating, and cured by cleansing the *Primæ Viæ*, and taking Stomachics. If the Stomach is well, the whole Body is light, and the Sleep sweet; but, if it be loaded with incongruous Aliment at Night, the Sleep is little and disturbed. Pains in the Head produce Wind and Loss of Appetite; a Fit of an *Apoplexy* causes Vomiting, as well as Wounds in the Head. *Difficult Dentition* causes Fevers, Asthmas, Epilepsies, and other Symptoms. If you irritate the *Oesophagus* with a Feather, it causes Vomiting; and the *Heart-burn* will bring Water into the Mouth. Likewise Vomiting is a common Attendant on the Colic. The Diaphragm and Lungs thus affected, produce Hiccups and the Hooping Cough; and Pains from the Gravel cause Vomiting. The Stomach likewise corresponds with the Feet, whence the *Epilepsy* sometimes begins in the great Toe, ascends to the *Abdomen*, then to the Heart and Diaphragm, and last of all to the Head, with a Sense of Cold. Standing upon a cold Pavement will produce the Gripes, and a Looseness. A striking in of *Exanthemata* will create Spasms, Gripes, Anxieties, Costiveness, and Inflammations. From the *Worms* proceed an *Epilepsy*, *Delirium*, *Vertigo*, Sneezing, a temporary *Gutta Serena*, and a transitory Deafness, Convulsions, Fevers, Palpitations of the Heart, Coughs, Pains, and a Bastard Pleurisy, Loss of Appetite, Inclination to vomit, Watering of the Mouth, and the like; for which give Pills of *Asa Fætida*, *Myrrh*, *Saffron*, and *Mercurius Dulcis*.

This Consent is farther proved from the *Iliac Passion*, *convulsive Colic*, *Dysentery*, and the Effects of Medicines, but in nothing more than in Applications to the Feet, for stimulating *Suppedalia* help the Memory, Debility of the Senses, the *Palsy* which succeeds an *Apoplexy*, and stop Bleeding at the Nose. *Cephalic* and *aromatic Spirits* applied with Oil of *Marjoram* and *Lavender*, greatly relieve the Head, and in sleepy Distempers have promoted a large Flux of Phlegm from the Nose and Fauces, with a salutary Effect.

Of OBSTRUCTIONS.

OBSTRUCTIONS chiefly take Place in the Vessels, and very seldom or never in the larger Receptacles.

This may arise from three Causes: 1. Either the Liquid which should pass, is grown more viscid, while the Capacity of the Canal remains the same; or, 2. The Canal is grown narrower, whilst the Liquid remains as it was; or, 3. The Straitness of the Canal, and the Viscidity of the Liquid, are combined together.

The Particles of all Fluids cohere with a certain Degree of Force. Now, in order that the Fluids may pass through the smallest Extremities of the Vessels, it is requisite that they pass single, and freed from their Cohesion with the rest; the Powers, therefore, that carry the Humours through the Vessels, must be able to overcome this Cohesion. Should then the Cohesion of the elementary Particles be so increased, as not to suffer them to be divided from each other, by the Action of the Heart and Vessels, several of them will remain conglomerated, which ought to have passed singly through the Extremities of the Vessels, and so form an *Obstruction*.

All Tumours must arise, either from the Fluids distending the Vessels beyond their natural Bulk, or from their being extravasated, or from the Vessels being concreted with their inspissated Liquids. When the Arteries and Veins, which are charged with red Blood, are so distended with the Quantity they contain, as to compress the smaller Vessels which lie near them, they may do much Mischief. The Effects of this Kind of Tumour are especially seen in the Damage it does to the Action of the Brain; for the *Cranium* being always entirely full, and no red Blood being any where to be found but in the *Pia Mater*, and the large red Arteries dispersed through the medullary Substance of the Brain, and surrounding the *Medulla Oblongata*, the cortical Substance naturally containing none; it follows, that when these red Blood-Vessels are distended, as the hard boney Part of the *Cranium* cannot give Way, the other Vessels of the cortical Substance, and the *Medulla*, must be compressed; by which Means all the Functions of the Brain will be disordered; only the *Cerebellum* will, in this Case, be less affected.

Tumours attended with Pain are called *Phlegmons*; if without Pain, and hard, *Schirruses*; if without Pain, and soft, they are then properly called *Oedemata*; which are applicable to Tumours arising in the *Membrana cellulosa* only. The Matter of them is generally Water, as in the anasarcaous Dropsy; or

some more viscid pituitous Liquid, as in the *Leucophlegmatia*. Now the *Membrana cellulosa*, which is the true Seat of these Tumours, surrounds all the Vessels, and the Tumours are consequently capable of lessening the Areas of the Sections of the Vessels, and frequently of producing very surprising Diseases, entirely owing to this single Cause.

Varixes happen more particularly to Women with Child, and that especially in the Legs; because, when the *Uterus* is distended, and presses upon the iliac Veins, it prevents the Veins of the Thighs and Legs from discharging the Blood they contain, so expeditiously as they ought.

A *Callus* in the membranous Part increased in Bulk, is attended with Hardness and Insensibility, arising from the Vessels being concreted together, and chiefly by an external Compressure. Its proximate Cause is the Compressure of the Vessels, the Expression of the Liquids they contain, and the Concretion of their Sides.

The proximate Cause of all Obstructions is only one, which is always simple and the same; *i. e.* the greater Bulk of the Matter that is to be transmitted, above the Capacity of the Canal that is to transmit.

There are two Causes that distend the Arteries; the Force of the Heart propelling the Blood, and the Quantity of the Blood already contained in the Arteries: If the Force of the Heart be lessened, the whole Circulation proceeds slowly; if the Quantity of the distending Liquid be diminished, the Fault lies in the Inanition. But the Capacity of all the Vessels depends upon two opposite Causes; the Force and Quantity of the Liquid which is moved in the Vessel, and the contractile Power of its Sides, which resists the distending Causes. As soon, therefore, as the distending Causes are lessened, the contractile Powers will produce the same Effect; or, which is the same thing, the Vessels will be rendered narrower. When the Particles of our Fluids lose their spherical Figure, they must of Consequence lose the Possibility of an uniform Transition through the Vessels: For since by the Motion of the Heart and Arteries, every Particle of the Blood has a different Motion and Situation every Moment, it was requisite to make this Motion uniform, that they should be of such a Figure as might enable them to pass through the Vessels in any Situation; which is the Case of a spherical Figure only.

The Density of the Particles of the Blood is always proportional to the Power of the Heart and Arteries. The Shape of the elementary Particles of our Fluids, so far as we can discern, by the Help of Microscopes, is spherical; and this is obvious,

obvious, if we consider that the Blood is thrown, by the great Force of the Heart, into a conical Vessel that is reciprocally dilated and contracted, and incurvated as soon as it comes from the Heart. It is plain, therefore, that no Particle of Blood can keep the same Direction for two Moments together; and consequently, that the Particles must be continually striking against each other: So that if any angular Point should stick out in any elementary Particle, that Point must sustain the Rotation of all the rest; and, therefore, will soon either be beat off, or smoothed down. Add to this, that the Extremities of the Arteries, if cut transversely, have a circular Section, and so may give their Figure to such Particles as are of a flexible Nature.

The stronger a Person is, the greater is the Danger of Concretion, if his Blood be at rest in the Vessels: And therefore those Faintings, which weakly Girls are so subject to fall into upon every slight Occasion, are seldom so dangerous, as their Blood is in a too dissolved State, and scarce ever, or, at least, very slowly, concretes, though it remain unmoved. The Serum of Blood will not turn to Ice, till exposed to the twenty-eighth Degree of *Fahrenheit's* Thermometer; so that it requires a greater Degree of Cold than Water; probably because it is impregnated with Salts.

If Blood be taken away on the first Day of the Small-pox, it looks well to the Eye; if on the third and fourth, it will be covered with an inflammatory Crust, because the most liquid Parts being carried off by the Fever, and the thicker Parts more closely compacted, the Particles of Blood begin to cohere more firmly together: For whilst there is a large Quantity of thin Liquid interposed between the thicker Parts, the Pressure of the Vessels will not change their Figures; but when this is carried off, the thicker Parts of the Blood becoming contiguous, will be forcibly compressed by the Action of the Vessels, lose their spherical Figure, touch each other in many Points, and run into Concretions: For when the Vessels are very strong, so as to compress their Fluids with great Force, the finest Part will be carried off, and the thicker Parts united by this Compression.

All *Acids* do not coagulate the Blood: The *acidulous Wines, Juices of ripe acid Fruits, Vinegar, Butter-Milk, &c.* rather dissolve it; but the *fossile Acids* prepared from Sea-salt, Nitre, &c. coagulate it. Alum, and the various Sorts of Vitriol, produce the strongest Coagulations.

Well rectified Spirit of Wine, applied to the Mouths of the bleeding Wounds of divided Vessels, puts a Stop to the most violent

violent *Hæmorrhages* by coagulating the Blood. The Serum of the Blood itself will presently become hard by pouring rectified Spirit of Wine upon it. How dangerous, therefore, must be the frequent Use of spirituous Liquors.

No Obstructions can possibly be formed in Canals, through which, during the Course of Life, the Liquids are carried by a perpetual Motion, unless the Motion be from a broader Orifice to a narrower. That Obstructions may arise in conical Vessels, through which the Liquids are moved in a Direction leading from the Basis to the Apex, is certain; for their Particles arrive at a narrower Section of the Cone every Moment; and that which easily passed at the Basis may easily stick in the Extremities of this converging Canal, and then the Liquid behind will continually press the unpassable Mass into a still narrower Chancel, and so increase the Obstruction: But in the Veins, where the Direction of the Motion tends from the Apex of a conical Canal, to its Basis, an Obstruction seems not possible, unless by the external Compression of the Vessel; for whatever had passed the narrow Orifice of its Vertex, will easily pass the other Sections of the Canal, which are continually growing larger: And though the Particles of the Fluid be supposed to unite into still larger Particles, yet, as these are not supported by the diverging Sides of the Veins, they will easily be carried on by the Impetus of the subsequent Liquid.

In a Peripneumony, it is a bad Symptom if the Blood drawn from a Vein be too dilute, and scarce disposed to coagulate; because it shews, that the thinner Parts only pass through the Lungs, while the thick are accumulated.

It often happens, that acute inflammatory Diseases of the Head shall leave behind them an incurable Deafness or Blindness, during Life; the Reason of which is most probably this, that when the greater Vessels were obstructed by the Inflammation, the lesser, derived from them, being compressed and collapsed, were, by this Means, grown together.

When in an Apoplexy the Brain ceases to perform its Functions, it is seldom cured; some Defect or other of the Functions always remaining, which, for the most Part, proves incurable.

When the Stomach is distended with a large Quantity of Meat and Drink, and presses the descending Trunk of the *Aorta*, the turgid Face, the red Eyes, the increased Pulsations, and the quicker Respiration, all shew the Quantity of Blood to be increased in the upper Parts, and that it flows with greater Celerity through the Vessels: Hence it is that
we

we meet with so many Instances of Persons who have died of an Apoplexy immediately after a full Meal.

If a confirmed Schirrus, or a malignant Cancer, that will not admit of Extirpation, be the Cause of an Obstruction, he must be a bold Man that in such a Case will presume to promise a Cure.

The Passions of the Mind are capable of very suddenly and very powerfully increasing the Contractility of the Solids. I have seen a Woman in perfect Health, who, upon a sudden Fright, had a Tumour immediately rise in her Breast, which, though very properly treated, hardened into an irrefoluble Schirrus.

Warm Water will soften the harder Parts of the Body; but when turned to Vapour, will more effectually accomplish this Office. The Joint of the Elbow, grown immoveable from an Induration of the Ligaments, was rendered entirely flexible, in two Months, by being exposed two Hours every Day to the Vapour of warm Water. Where this can be conveniently directed to the Part, it is most undoubtedly to be preferred to all other Methods. Warm Water dropping from a higher Situation on the Part affected, has done Wonders in local Diseases; chronical and stubborn Tumours of the Knee have been often cured thereby.

Bleeding often is useful in Obstructions arising from the increased Contraction of the Fibres; for thus emptying the large Vessels, the lesser ones which form their Sides are less compressed, and the Force by which the Liquid is impelled against the obstructed Place is diminished; and in Case the Quantity of Blood taken away be large, so as to endanger Swooning, the Pressure of the vital Liquid from the Basis of the Vessel to the Vertex, being, by this Means, removed, the smaller Vessels will be enabled to contract and repel the Liquid which obstructs them in the larger Vessels.

A Callus, if pared off from the Skin, will grow again, although no vital Liquid flow through it: And this seems to arise from the concreted Extremities of the Vessels being gradually protruded by the vital Liquid; as also because the open Extremities of the Vessels, that are next the Callus, are compressed by it.

Animal Motion increases the Velocity of the Circulation, and renders the solid Parts more firm.

Frictions are of great Use in resolving Obstructions. I have seen an indurated parotid Gland, after many good Applications had failed, resolved, by being rubbed with Woollen Cloths for an Hour together, twice a Day, after having been

been exposed to the Vapour of warm Water and Vinegar. The same has been effected in the Glands of the Neck, which were strumous.

Muscular Motion also is of singular Service in this Case; as the venal Blood is accelerated thereby, it occasions the Heart to contract oftner, and more frequently distends and contracts the Vessels alternately in a given Time.

Sea Salt, Sal Gemm, Sal Ammoniac, being much alike in many of their Qualities, have also a similar Power of attenuating. The two former, when given inwardly, mix, indeed, with our Humours, but pass off by Urine, in a great Measure unchanged; for which Reason, though they pass through most of the Vessels of the Body, yet they undergo no Alteration from their Action. Now, whatever is taken down, and cannot be changed by the Powers of the Body, will constantly excite a greater Motion by acting as a Stimulant. But Sal Ammoniac, which is lighter than the other two, and more like the native Salts of the Blood, is more capable of being changed by the Powers of the Body, and of a very penetrating Nature; and is therefore generally preferred before the rest, and justly commended as one of the greatest Deobstruents, both in acute and chronical Diseases.

The Action of these Salts seems to consist in this, that when they are mixed with the Humours, dissolved, and conveyed to the obstructed Places, from a Kind of constant Attrition by the Action of the Vessel against the obstructing Mass, they divide it by their Weight and Figure, and thereby render it passable through the Vessels; at the same Time increasing the Action of the Vessels themselves, by their stimulating Quality.

When the Vessels under the unbroken Skin are ruptured by a Contusion, and the Blood concentered into a Mass, which is still intire, these Salts dissolved in Water, and applied to the Part, will most happily dissolve it.

Those who indulge themselves too much in eating large Quantities of Sea Salt, will have their Blood so dissolved, that it can scarce be retained in the Vessels; hence often will arise very violent Hæmorrhages, partly from the Blood's too great Dissolution, and partly from the too great Acrimony of the Humours eroding the Vessels.

The Modern Nitre seems quite different from that of the Ancients; for theirs appears to have been of an alkaline Nature, or perhaps it was Sal Ammoniac to which they gave this Name. Modern Nitre is of a Nature strangely ambiguous, between vegetable, animal, and fossile. If free from Sea Salt it

remains dry in the Air, dissolves entirely in Water, is the lightest of Salts, a very great Attenuant, and highly useful in Obstructions from an inflammatory Density of the Blood.

Borax is a very wonderful Salt, whose Nature is not well known, and its History confused, even in the best Writers. It is commended much as a Deobstruent, and used in the most obstinate Diseases, as it acts partly by its wonderful Stimulus, and partly by its attenuant saline Power.

All Soaps contain an Oil so intimately mixed with a Salt, as to be capable of being dissolved in Water without Separation: The more subtile the Oil and the Salt are, of so much the more excellent Use is the Soap which is made from them.

Pills of Soot, gilt over to prevent their offending the Taste, have often done great Service in Diseases arising from Viscidity, on Account of their soapy attenuant Nature.

That Bile has a dissolving Power, is evident from those Diseases, where, by being hindered from taking its usual Course, it regurgitates backwards into the Blood, in which Case it turns it all to a Water; and for this Reason it is, that obstinate Jaundices are almost constantly followed by a Dropsy. If Bile, inspissated as an Extract, be rubbed on the swollen Bellies of Children, it will dissolve the Concretions formed in their Intestines, and carry them off by Stool.

It is sufficient, if a Physician knows the Effect of Quick-silver, when applied to the Body, though he be not acquainted with its particular *Modus operandi*: The Virtue of other Remedies is no less obscure; who has ever explained the Manner by which Scammony carries off the Blood by Stool, after it is converted into a putrid Water?

Who ever has thoroughly understood the wonderful Properties of Antimony in its several Preparations?

Bleeding will succeed better in a Pleurisy, if the Side affected be gently rubbed at the same Time the Blood is issuing from the Vein; or if the Patient move the affected Part, by frequently drawing in his Breath as hard as he can, or by Coughing.

Obstructions in inflammatory Diseases are more easily removed in Men of lax Habits, than in strong Men who have been accustomed to hard Labour.

Of an Excess of the circulatory Motion of the Blood.

THE Blood of Persons in Health is much disposed to Concretions; and this may be increased by the Increase of Heat: Blood thus concreted is not easily solvable.

Whatever causes the venal Blood to move more swiftly towards the Heart, increases the Motion of the Heart: Hence it appears how a very high Fever may be raised by too violent muscular Motion, or by violent Frictions.

An increased Motion of the Blood arises from the more frequent and violent Contractions of the Heart. The Dilatation of the Arteries must be increased in a Proportion compounded of the increased Strength and Frequency of those Contractions.

The Arteries, when they are distended, are in a violent State; and hence their Sides endeavour to approach nearer to their Axis, by their Elasticity and circular Action, and so repels the distending Blood: For, unless the Arteries, by being contracted through their own Spring, were to expel the Blood which distends them, the Heart would not be able, the next Systole, to throw the Blood contained in its Cavities into the Arteries already distended; consequently the Blood would by Degrees be accumulated within its Cavities, and the Circulation stopped. The stronger, therefore, the Motion of the Heart is, which distends the Arteries, the greater will be the Power of that Force by which the Arteries endeavour to contract their Cavities; and the oftener the Heart is contracted in the same Space of Time, the more frequently will the contracted Arteries re-act upon the Blood that distends them.

Heat arises from the Attrition of the Parts of the Blood with each other, and with the Sides of the Vessels. As soon as the Blood is at rest, all Heat ceases; which revives again upon its Motion. This made HIPPOCRATES assert, that *the Blood is not hot by Nature, but grows hot.*

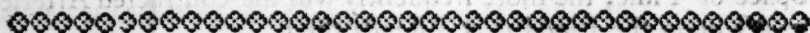
The Urine, which is the true Lixivium of the Blood, grows more acrid and fetid, as the Circulation becomes more violent: The Motion of the Blood being increased, its Salts become more acrid and volatile, and its Oils thinner and less mild: These again will form a fresh Stimulus to increase the Circulation, from the Increase whereof they deduced their Origin. And thus the Effect of a Disease shall increase the Disease itself.

Health seems, in a great Measure, to consist in every Vessel's containing its own due Portion of Liquor.

36 Of an Excess of the circulatory Motion of the Blood.

The Quickness of the Pulse shews that the Heart is contracted more frequently than it should be, in the same Space of Time; its Hardness indicates the Fulness of the Arteries; that the Blood is very compact and dense; and that with Difficulty it gains a Passage through the minute Vessels, from its inflammatory Viscidity.

All the Blood thrown out of the Right Ventricle of the Heart ought to pass through the Lungs before it can return into the Left: But as the Right Ventricle would not suffice to propel all the Blood through the narrow Passages of the pulmonary Artery, by its own muscular Force alone, there is farther required the concurring Action of Respiration to dilate the Lungs, and thereby open a free Passage to the Blood that is thrown from the Heart. In Proportion, therefore, as the right Ventricle of the Heart, in a given Time, contracts oftner and stronger, so much the more frequent and strong the Inspiration is required to be. Thus we see, that whenever the Motion of the Blood is increased by Running, or any other violent Exercise, the Respiration increases in Proportion, and is performed with greater Difficulty. And thus the Respiration is greater, merely from an Increase of the Velocity of the Blood which passes through the Lungs. But when, besides this, through the greater Motion, the Blood begins to assume an inflammatory Thickness, the Respiration will then be much quicker, and more difficult; for this ill Quality in the Blood, of its not being able to circulate, first shews itself in the Lungs; and for this Reason, in acute Diseases of the inflammatory Kind, a short and difficult Respiration is reckoned a bad Symptom.



Of a Defect of Circulation, and of a PLETHORA.

A Diminished Circulation is always attended with a Fullness of the Veins: For if the Viscera, whose Office it is to change the Aliment into Chyle, be firm and strong, this large Quantity of Chyle is converted into good Blood; and as the Veins are of a lax Nature, they will easily yield to the distending Liquid, and admit this superfluous Quantity, unless emptied by Motion and Exercise; so that by *Plethora* is not to be understood every Increase of the Humours, but only an over Increase of the Quantity of Blood.

A delicate Way of Living, Intemperance, Laziness, and supping overmuch, may give Rise to a Plethora; which may likewise

wife be the Effect of the Suppression of habitual Discharges, whether natural or artificial, and even of some Diseases which Nature has made the Means of restoring the necessary Equilibrium between the Fluids and their Vessels.

When hard Drinkers pour down such vast Quantities of Liquor, they would be suffocated, if their Veins were not capable of giving Way, and receiving the superfluous Part of it; and therefore it is that those People have their Veins so much inflated. If then much Chyle and Blood be formed in the several Viscera set apart for this Purpose, and the Laxity of the Veins, at the same Time, be proportionally greater, the Quantity of Blood must necessarily be accumulated.

Men used to frequent Bleeding suffer the same Inconveniences, at their accustomed Times of letting Blood, as Women do from the Retention of the Catamænia, till, at length, they become quite as lax as Women.

Hard-working People are seldom known to be plethoric, though they eat voraciously; because Labour carries off that which would otherwise be detained in a State of inactive Idleness, and gives such a Firmness to the Solids, as not easily to yield to the filling Liquors.

Rarefaction is alone capable of producing a Plethora; for if the Blood be rendered twice as rare as it was, it is the same Thing with respect to the Vessels, as if there were twice the Quantity of Blood contained in them.

Without discussing the Point, whether a Plethora should be admitted among the Number of Diseases, or considered as a Cause only, it must, however, be allowed capable of exciting the greatest Disorders, such as Vertigos, Convulsions, Apoplexies, obstinate Ophthalmias, Fevers, internal Hemorrhages, suffocating Catarrhs; and, in a word, Numbers of other Maladies, which, though apparently of a very different Character, yield not to the same Treatment and Remedies which a Plethora requires.

When an evident Redundancy of Blood has not, as yet, produced any dangerous Stagnations, the proper Means to oppose its Progress, are an abstemious Diet and bodily Exercise; not neglecting to restore, as far as possible, any habitual Evacuations which may have been suppressed. It has been generally held, that in other Cases, Bleeding should indispensably be had recourse to; to persist too far in it, may, however, be very dangerous, as it is but too notorious, that a frequent Use of it is apt to weaken the elastic Force of the Vessels, as observed above. But Exercise should never be prescribed till the Vessels have been first emptied by Bleeding, lest, by being too much dis-

tended, they should be liable to break. Other accessory Remedies may be serviceable according to particular Circumstances, especially Purgatives; when the Body has been duly prepared by Diet and Bleeding.

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Of PAIN.

THAT the Teeth, Ears, Stomach, Intestines, Kidneys, &c. are liable to most acute Pains; that the Liver, Lungs, Spleen, and other Viscera, are the Seat of less violent Pains; and that those which affect the fleshy and membranous Parts are a known Symptom of the Rheumatism, Gout, Pox, Scurvy, Cachexy, &c. falls under almost every one's Observation. Moreover, it is customary to distinguish Pains by the different Sensations which they excite, as that of Weight, Pulsation, Pungency, Gnawing, Heat, Itching, &c. The *heavy* or *weighty* Pain frequently attacks the Head and the Viscera of the lower Belly, but mostly the Kidneys; The Head is also the Seat of *pulsative* Pains, but they more particularly accompany the Formation of Pus; and the Shootings felt under this Circumstance are a more manifest Indication of it than any other Symptom. *Pungent* Pains torment the membranous Parts, and are sharper the more the Membranes are stretched; of which the Pleurisy, Sciatica, Cholic, Spina Ventosa, &c. furnish Examples. *Gnawing* Pains, as Ulcerations, with which the Lungs, Kidneys, Guts and Womb are the ofteneft affected. The *burning* Pain is most remarkable in the Erysipelas, whence it got the Name of *St. Antony's Fire*. The *itching* Pain belongs principally to Diseases of the Skin. Besides these there are *dull* Pains, which occupy chiefly the precordial Parts, otherwise called *Anxieties*. Nothing is more common than *numby* and *crampy* Pains, with those nocturnal Inquietudes which are felt principally in the lower Extremities; and their disagreeable *tickling* Sensation about the End of the Sternum, and in the Bottoms of the Feet; to say nothing of those which arise from Pressure, Contusion, Distension, Wounds, Burns, or Cold; all which Varieties depend, as may be easily understood, both from the Structure of the Part, and the Nature of the irritating Cause.

Pain, wheresoever seated, is rarely essential, or independent of all other Conditions; being, for the most Part, a Symptom

Symptom of some acute or chronical Disease. In the former, if the Pains be continual, either in the Breast, or the lower Belly, they portend Suffocation, Inflammation, Suppuration, or Gangrene: It is otherwise with those which occupy the Externals or Extremities of these Cavities; for they may be, in the Course of the Disease, the Forerunners of some critical Change.

Pains which are neither continual, nor fixed, depend upon a simple Affection of the Nerves, called a *Spasm*; which acts its Part sometimes in perfect Health, as well as in chronical Diseases.

It is worthy of Observation, that the most frequent Pains which accompany habitual Disorders, depend chiefly on those four principal Diseases, the *Rheumatism*, *Gout*, *Scurvy*, and *Pox*. Yet are not these the sole Source of wandering and irregular Pains; for such may be excited by the Passions of the Mind, convulsive Affections, obstructed Perspiration, &c. Besides, in some chronical Diseases, Pains are owing to vascular or glandular Obstructions, Tumors, and other Disconcertions of the Solids.

There are certain Pains on whose Nature it is extremely difficult to form a right Judgment: The Seat of some internal ones, and their Causes, are often hard to guess at: Nevertheless, there are no great Consequences to be apprehended in Fevers, of Pains attacking the Head, Back, and extreme Parts, as they seldom fail to disappear when the Fever is at an End; and they are often of a favourable Presage, especially if they coincide with the Time of Concoction: For Example, those of the Temples, Neck, and Eyes, denote an approaching critical Hemorrhage. Wandering Pains through all the internal Parts, sometimes precede Evacuations or salutary Eruptions. Those of the Loins are well known to precede the menstrual Flux, Hemorrhoids, and a copious Discharge of Urine. Violent and continual Pains of the Head, sometimes terminate in a Lethargy and a Delirium.

Intermittent Pains are ever less dangerous than those which are *continual*; as are likewise such as *shift their Place*, than those which are *fixed*; excepting, however, those which externally affect the Viscera, which is sometimes the Case in the bastard Pleurisy, Gout, Rheumatism, &c.

It should also be remarked, that the *Seat of the Pain* is not always that of the Disease: It is well known, that of the Head often depends on the bad State of the Stomach; that Obstructions of the lower Belly frequently excite Pains in the Neck and Breast; that an Irritation of the Bladder is felt at the

Extremity of the Penis; and that some Affections of the Intestines, remote from the Anus, often produce a Tenesmus.

The Method of treating Pains is sometimes attended with great Difficulty, as to discerning and attacking the Cause of them; but Practitioners are for the most Part a little Remiss in this Inquiry, contenting themselves with palliating or appeasing them, till such Time as Nature performs the rest. *Emollients*, *Moisteners*, *Relaxants*, and *Narcotics*, are employed in producing this Effect; the latter, however, are improper in Suffocations and Inflammations, and dangerous where a Gangrene is apprehended. Nor must they be administred in the Gout and Rheumatism, even externally. The three others fall not under the like Exceptions, being extremely beneficial in all Sorts of Pains, given internally, or outwardly applied. The Efficacy of the *Peruvian Bark* is very conspicuous in regularly intermitting Pains; but herein the Discretion of the Physician must be carefully exercised. *Revulsions*, whose Business it is to attract the Blood, Humours, and peccant Matter, to some other Part, are likewise much in Use, and attended with the happiest Success: They are performed by Evacuation or Irritation; *taking away Blood*, applying *Leaches*, *Cupping-glasses*, with or without Scarifications, *Blisters*, and *Cauterics*, are the Means chiefly employed. The *Moxa*, a Remedy which has been highly extolled, though of late so much neglected, may be admitted to great Advantage into this Class. The like Benefit may be obtained from the bare *Immerision of the Feet* into warm Water, or from *Frictions of the Legs*. It is sometimes observable, that Disorders of the Head, which proved obstinate to the most powerful Remedies, yielded to these slight Artifices. After all, it is expedient to trace, as far as possible, the sometimes *deeply hidden Source of Pains*; to examine if they do not depend upon some local Vice, which requires other Helps; if they do not participate of the above-named *principal Diseases*; and lastly, if they do not demand the Assistance of Surgery, as arising from *Luxations*, *Fractures*, *Contusions*, *Sprains*, *Hernias*, &c.

THE
GENERAL PRACTICE
OF
PHYSIC.

Of FEVERS in general.

✱✱✱✱✱ F any Disease deserves the Title of *Universal*; it is a **FEVER**; because it disturbs the whole *nervous System*, and perverts all the *Functions* of the Body: insomuch, that the Motion of the Heart, Arteries and Solids cease to be equal and just, the Circulation of the Blood and other Fluids to be free and natural, and the salutary Secretions and Excretions to be regular; even the Mind itself, when ruffled by the febrile Onset, is affected with a *Delirium*.

Besides, this Disease attacks all Mankind, of whatever Constitution, Sex, or Age, in all Climates, let their Diet and Way of Living be what they will. Sometimes it is *epidemic*, and seizes many at a Time, creating great Trouble and Labour to the Sons of *Æsculapius*. Nor is it always a *primary Disease*, entering the Lists singly, but often the Symptom of other Maladies, as a Cachexy, Scurvy, Phthisis, Lues Venerea, Dropsy, and renders them more cruel and dangerous.

However, it is not always pernicious to the human Race, but sometimes vanquishes its own Cause, and supervening to other Diseases, expels them out of the Body: Thus, Palsies, Epilepsies, Convulsions, spasmodic and hypochondriac Affections have been cured by Fevers. And many *Valetudinarians* have, by a Fever, been restored to a healthful and vigorous Constitution.

But *medicinal Writers* have given such various and inconsistent Definitions of a Fever, that it is no easy Task to determine by what Laws these seemingly contrary Effects are brought about:

Though

Though among the Herd of hypothetical Authors, some undoubtedly come pretty near the Truth. *Hoffman* defines a Fever to be, *A spasmodic Affection of the whole nervous and vascular System, annoying all the Functions of the Body, arising from any Cause which has Power to irritate the nervous Parts to a more intense Contraction; and when it operates, it drives the vital Fluids from the outward Parts to the Heart and great Vessels; and afterwards, when the Systole of the Heart and Arteries are increased, they are driven back with Rapidity and Heat, through the constricted Vessels, to the outward Parts again, till the Spasms being relaxed, the Secretions are performed, and the Fever vanishes.*

The formal or fundamental Cause of a Fever, consists in the *spasmodic Affection* of the whole nervous and fibrous Genus. This plainly appears from the usual Passions and Phænomena of a Fever, viz. a Pain in the Back, more particularly about the Loins; a Coldness, especially of the extreme Parts; a Shivering, Shaking, Trembling, a livid Colour of the Nails; a Subsidence of the Vessels of the Hands and Feet; a shrunk, dry Skin; a Yawning, a Stretching; a pale, livid Countenance; a trembling and palpitating Motion of the Heart, and Anxiety of the *Præcordia*; difficult Breathing; Inquietude, Restlessness; a Sensation of an Ebullition of the Blood about the Heart; a contracted, weak, small Pulse; a *Nausea*, and an Inclination to vomit; a Suppression of Perspiration; Costiveness, with thin, watry Urine.

Hence it naturally follows, that whatever has a Power to irritate and sollicit the nervous and vascular System to Spasms, is most likely to generate a Fever. To this Class belong violent *Passions of the Mind*, especially *Terror* and *Anger*; a poisonous, subtle, caustic Matter, either bred within the Body, or received by Infection; a Stoppage of Perspiration; a Suppression of critical Sweats; Eruptions driven back; an Abundance of purulent ulcerous Matter adhering to various Parts; Aliments over and above acrid and sharp; corrupt and bilious Crudities lodged in the *Primæ Viæ*; excessive Watching; a violent Pain and Tension of the nervous Parts; Inflammations, Tumours and Abscesses; hurting the nervous Parts by sharp Instruments, acrid and corrosive Drugs; Cold Baths, and, on the contrary, those that are too hot or astringent.

According to the different Nature of these Causes, and the various Manner of affecting the Nerves, arise Fevers of divers Kinds; some are benign, others malignant; some are intermitting, others continual; some are simple, others compound; others regular or anomalous; eruptive, spotted, putrid, hectic, or slow. Some admit of an easy Cure, others a difficult; some

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soon terminate, others are protracted a long Time; and many hurry the Patient out of the World.

Yet, every frequent *Systole* of the Heart and Arteries discoverable by the Pulse, ought not to be called a *Fever*. For these may often arise from violent bodily Exercise; or, from a Commotion in the Blood caused by hot and spirituous Liquors. That only which arises from internal Causes, and is preceded by Shivering, Shaking, and Coldness of the Extreme Parts, is properly a *Fever*: For there is always, as it were, a double Motion in a *Fever*, the one from the *Circumference* to the *Centre*, or from the external Parts to the internal, the Heart and Lungs; the other from the *Centre* to the *Circumference*. The first Motion is attended with a small, contracted weak Pulse, with an Anxiety of the *Præcordia* and Difficulty of Breathing; the second with an increased Motion of the Arteries, a large Pulse, and Heat extended even to the extreme Parts.

These two Motions are evidently of a different Nature and Efficacy; the *first*, from the *Circumference* to the *Centre*, is not only less salutary, but morbid, καὶ ἰζοχὴν, nay, often fatal. For those who die of a *Fever*, whether continual or intermitting, acute or chronical, die under the Spasm, Coldness, Chills, Shivering and Shaking, with Convulsions of the external Parts; because the Heart, Lungs and Brain are at that Time more oppressed with the internal Congestion of Blood, which by reason of Weakness they are not able to repel. The other Motion from the internal Parts, from the *Centre* to the *Circumference* and minute Vessels, is even medicinal, preservatory, salutary, and vital; for, under this, and by this, the morbid Matter exciting the febrile Spasm, is corrected, dissolved, and expelled, and so the *Fever* terminates.

In reality, the *Cause* of the febrile Motion is an universal Spasm; and that Motion never ceases till the Spasm is resolved. The Signs of its being resolved are, a free Perspiration, and a breathing Sweat; the Pulse, which before was hard, impetuous and quick, becomes soft, moderate and slow; the Urine lets fall a Sediment, and the Strength gradually returns. When these appear all together, they declare the Solution of the Disease, and are called the *Crisis*; because the Physician is enabled by them to pronounce of the Disease. The Ancients said, a *Fever* was a *Struggle with the Disease*; because, if the Spasm, which forces the Fluids to the inward Parts, is stronger than the Heart and Arteries, driving them outwardly, the Disease is Victor, and Death ensues. But, if the retrograde Motion, caused by the Spasm, is overcome by the vital *Systole* of the Heart and Arteries, thrusting the Blood outwardly, the Disease is expelled, and

and the Health returns; which Victory happens, after this Struggle, on certain Days, generally relative to the *septenary Number*; which are hence called *critical Days*, on which the Physician can judge what will be the Event of the Disease.

So that, to speak in plain Terms, a Fever is a real Effort of Nature to rid itself of something noxious. When there is any how such a Quality or Condition introduced into the Habit of the Body, as would terminate in the Destruction of the Animal, if the Cause was not removed; in that Case, Nature, that is the vital Principle, raises a Fever, by which the peccant Matter may be attenuated, comminuted, or otherwise changed, and assimilated to the sound Juices; or, if that cannot be, that it may be fitted for Expulsion, whether by Sweat, which is most frequent, or by Urine, Stool, Vomiting, Hæmorrhage, or perhaps by insensible Perspiration.

A Fever, then, is to be considered as good in its own Nature; and though they often are fatal, yet it is more than probable, that if our Bodies were not assisted with a Power of exciting them on proper Exigencies of the Constitution, very few of the Human Species would survive the State of Infancy.

The ineffable Wisdom of Divine Providence, therefore, cannot sufficiently be admired, which has endowed the animal Machine of our Bodies with such wonderful Power and Faculties, that a Disease, which seldom happens without Detriment to the Functions and Danger of Life and Health, should have such a Tendency to destroy itself, and be its own Remedy. Then, since Nature is the Physician, it is a pernicious Practice imprudently to suspend, suppress, or destroy the Febrile Motions which have a tendency to Health. Her Intention ought rather to be promoted, which is by an increased, progressive Motion of the Fluids, to correct, resolve, and, at length, to expel the morbid Matter. And, this is best performed by diluting, moistening, attemperating, aperient, corroborating and nitrous Medicines; as also by those, which, in the Time of the Intermision, especially tend to promote the proper Excretions.

But, it is necessary to observe, that *Boerhaave*, and other Physicians of the first Class, will not allow *Spasms* to be the Cause of this *febrile Struggle*; but a *Lentor* of the Blood, which, stagnating in the capillary Vessels, occasions, by the Resistance, a quicker Contraction of the Heart, a natural vital Effort, excited to prevent the Destruction of the animal Machine, by removing the Obstacle to the Circulation. This quicker Contraction of the Heart will cause a greater Influx of the nervous Fluid into the Muscles, Blood Vessels, and Cavities of the Heart,
and

and produce Heat; so that Heat is rather the Effect or Consequence of the Fever already formed, than its Cause or Nature; and the Quickness of the Pulse is the *pathognomonic* Sign of a Fever.

Huxham, on the other Hand, supposes that a simple Fever may be generated by whatever greatly rarifies the Blood, or increases the Quantity of the Fluids, such as laborious Exercise, suppressed Perspiration, or a Debauch. He supposes, likewise, that by laborious Exercise, the blood may be so violently agitated and rarified, that, through its great *Impetus*, and Dilatation of the Vessels, some of the red Globules may be forced into the serous Arteries, and so form an *inflammatory Obstruction*. And likewise, that if the Velocity and Heat of the Blood should be so great, as to dissipate much of its thinnest Part, the Remainder would be left gross and thick, and less fit for Circulation through the minute Capillaries; and that the very *Serum* would be turned into a Kind of Jelly. Thus, by the mere accelerated Motion of the Blood, an inflammatory Fever may be produced, which, seizing on the Lungs, is a *Peripneumony*; on the *Pleura*, a *Pleurisy*; on the *Brain* and its *Membranes*, a *Phrensy*.

If the *Suppression* of *Perspiration* be considerable, and the *Fibres* strong and tense, the Blood much in Quantity, and very thick, Fevers of the same Kind ensue.

If, to tense *Fibres*, and much viscid, dense Blood, a great Quantity of Wine or other stimulating Liquors be added, both the Quantity and Velocity of the Blood may be so greatly increased, as to bring on a dangerous acute Fever, which too often follows drunken Debauches. From the Concurrence of two, or all these Causes, a more violent one, *cæteris paribus*, may arise. Hence the Necessity of early Bleeding, cooling Emollients, and laxative Clysters in the Beginning, and gentle, lenient Purges to cleanse the intestinal Canal of the *putrid Saburra*; then plentiful Dilutents, a few nitrous Medicines, and the acid, saponaceous Juices of Vegetables.

Boerhaave, indeed, allows, that violent Motion will occasion an Inflammation, though not by rarifying the Blood, but by rendering it more dense; and, that whatever deprives the Blood of its thin Parts, will do the same.

For my own Part, I can hardly conceive how any Fever, but an *Ephamera*, can be raised without some Degree of Acrimony; and whenever there is Acrimony, there will be also *spastic Strictures*; and *Huxham* acknowledges, that Acrimony may contribute thereto; for, he says, that a large Use of very salt and spiced Meats will raise a feverish Heat, even in the most healthy: And farther, that a *Constriction* arising from Cold-bathing, will bring on Paleness, Coldness, Shivering, a Stoppage of the Blood in
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the cutaneous Arteries, and Repulsion towards the Heart, which is followed by an universal Glow or Heat.

As to *Intermittents*, his Opinion is much the same as *Boerhaave's*; and, even in nervous Fevers he supposes a Kind of *Lentor*, or Ropiness in the Humours, as the proximate Cause of that Disease, which subsists chiefly in the serous and lymphatic Vessels, whence few animal Spirits are generated, and those too irregularly secreted and distributed. As this State of the Fluids will occasion Obstructions, the *stagnant Lymph* will grow more and more acrimonious, and so produce a Fever; for all Humours of the Body grow more and more corrosive the longer they stagnate. Hence he concludes, the Seat of these Fevers is in the *ultima Vascula*, or the serous and lymphatic Arteries; and, perhaps, in the very Origin of the Nerves.

Gilchrist, in his *Med. Essays*, accounts for Intermittents from a *Lentor*, and Acrimony; for he supposes Acrimony to be sufficient to bring on a Fever of this Kind, by giving an universal Stimulus. And from this Cause, though the Vessels are in a collapsed State, through a Defect of the Fluids, yet he thinks, there may be an universal Spasm or Stricture of the nervous Parts; and that this is not inconsistent with a great muscular Relaxation.

The highly *putrid, malignant, and petechial* or *spotted* Fevers, *Huxham* supposes many Times proceed from an antecedent Acrimony in the Blood, agitated by the supervening Fever; yet generally, the pestilential and *petechial* Fevers have their Origin from Contagion. *Hoffman* asserts, that the poisonous Vapour from whence these Fevers have their Rise, instantly pervades the inward and nervous Parts of the Brain, and there corrupts the animal Spirits; which is evident from the natural, vital, and animal Powers immediately becoming languid, while the *Crafsis* of the Blood and Humours, as yet, continue unhurt, though a putrid Fermentation is afterwards successively induced into them all.

But, in order to gain a more distinct Notion of the several Kinds of Fevers, it will be convenient to give some Account of each, and their Difference from each other.

The most simple Kind of Fevers is the *Ephemera*, which generally terminates by an increased Perspiration, in twenty-four Hours. Another Kind is the *Synochus* or *continual Fever*; it begins with a slight Chilness and Shivering, and the Symptoms have little or no Remission. It usually comes on early in the Morning, and terminates on the *fourth* or *seventh* Day, by bleeding at the Nose or profuse Sweats. A *Causus*, or *burning Fever*, is attended with a Burning; and, as it were, an igneous Heat of the whole Body, as also unquenchable Thirst, and a dry, chapped, black Tongue, which are the *pathognomonic* Signs of this Disease.

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An *inflammatory Fever* has a natural Tendency to a *Sphacelus* or Mortification. A *malignant* or *spotted Fever* owes its Rise to Infection. It particularly affects the *Lympha* and nervous Fluid; and is attended with sudden Loss of Strength, succeeded by perpetual Watching, which is the Forerunner of a Perturbation of Mind. There are likewise red, purple, and sometimes white Spots, which have a threatening Aspect. A *catarrhal Fever* is free from all these, and is caused by a saline, eroding Quality of the *Serum*, accompanied with a Defluxion, a Running at the Nose, a Hoarseness, a Sense of Fulness in the Breast, and a Sort of an erysipelatous Heat in the *Fauces* and Windpipe; though sometimes an epidemic, malignant, catarrhal Fever may happen to rage.

There is another, which *Haffman* calls a *Mesenteric Fever*, generally mistaken for the former, but is neither epidemic, nor contagious, nor petechial, nor suddenly fatal, and generally continues longer than twenty-one Days; it is attended with Coldness of the Extremities, thin Urine with little Sediment; frequent Coughing, and a small Excretion of crude Matter; a Redness and Pain in the *Fauces*; a Loathing of Food; a Want of Thirst, with uncertain Exacerbations. This seems to be a-kin to the *nervous Fever*, in which the Patients at first seem languid and uneasy, without any Marks of an evident Disease: They have Weariness and flying Pains; a Dryness of the Lips and Tongue, but little Thirst; rather a Dislike than Desire of much Drink; they often in a Day find themselves giddy, make pale Urine, are greatly dispirited and anxious, without being able to assign any Reason for it. They have often transient Chilnesses, the Pulse at the same time being low, quick and unequal; they have sometimes cold, clammy Sweats, Risings in the Throat, and the like.

As for *miliary*, *variolous*, *marbillous* and *petechial Fevers*, they may be easily distinguished from each other. In a *petechial* or *spotted Fever*, the Spots do not rise up, nor render the Skin rough, nor break out with Chilness, flying Heat, Itching and Heat in the Skin, and a great Oppression in the Breast, as in the *miliary Fever* both purple and white, which likewise are evident both to the Sight and Touch. The Spots of the *Small-pox* appear on the fourth Day, in the *petechial Fever* not till the seventh, and then without rising and Suppuration. The *Measles* are larger, with a small Elevation. The *Small-pox* and *Measles* on the first Day are hardly distinguishable, but easily on the second, because then the *Small-pox* begins to rise. The *Chicken-Pox* shews itself in large Vesicles, and the other Symptoms are mild.

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With regard to *intermitting Fevers*, a *Quotidian* differs from a *continual Quotidian*, such as *catarrhal Fevers* generally are, because in the latter there is only an Exacerbation and Remission every Day, but not a complete Intermission; the Exacerbations of *catarrhal Fevers* are towards the Evening; and in this they differ from the slow and hectic, in which they commonly happen in a Morning. In a *double Tertian* the Fits come on every Day, but at different Times of the Day; that is, if on the first Day, the Accession is at Five in the Afternoon; on the Third, it will observe the same Hour; and if on the second Day the Fit begins at Nine in the Morning, on the fourth it will do the same.

A *simple Tertian* happens every other Day; this is divided into the *legitimate* and *spurious*. In the first, the Shaking is succeeded by Heat, Thirst, and a Pain in the Head, and ends in about ten Hours: The Urine is of a flame Colour; in the second, the Heat is not so remarkable; it continues twenty Hours and longer; the Urine is turbid, but not high-coloured; when the Fit is ended there remains a great Languor and Lassitude of the Joints, with Want of Appetite.

The *Tertians*, by some, are distinguished into *choleric* and *pituitous*; *regular* and *irregular*; *vernal* and *autumnal*; *epidemic* and *endemic*.

The *Quartan* has two Fits in four Days; it is *spurious* if it does not observe the usual Times of Invasion, which are in the Afternoon and Evening. It is said to be *continual*, if there is not a perfect Intermission between the Fits, with a Languor of the Body, a gentle but preternatural Heat, and a quick Pulse.

A *hectic Fever* supervenes to a Dropsy, Consumption, Atrophy, and scorbutic Cachexy: If it has its Rise from Apostems of the *Viscera* or *Mesentery*, or from the Corruption, Putrefaction, or Induration of the mesenteric Glands, it is incurable.

But *slow Fevers* generally succeed *Quotidians* and *Tertians* injudiciously treated, enormous Hæmorrhages, and tedious Diseases. Likewise, if through the Weakness of the Stomach a great Quantity of Crudities are generated, a slow Fever will arise. In a *Hectic*, the Pulse is always quick, but remarkably so in the Morning; whence the Cheeks are observed to be tinged with Redness at all Times of the Day, with great Weakness. Whereas the Pulse in a slow Fever is more natural in a Morning and before Meals; after Eating it is more quick, with a Flushing in the Cheeks, and the Weakness is not so great.

Of *inflammatory Fevers*, the *Peripneumony* and *Pleurisy* are most common. A *true Pleurisy* has its Seat in the *Pleura*, a Membrane which invests the Inside of the *Thorax*; a *bastard Pleurisy* is confined to the *intercostal Membranes* and *Muscles*,
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and is a Kind of Rheumatism. The Pain is external, and may be exasperated by touching it, being rather vague than fixed: Sometimes it extends itself to the *Scapula*. The Cough is rather dry than moist, without Blood, and the Fever is small. It is most troublesome in the Evening, and is generally soon cured without Bleeding. In a *true Pleurisy*, the Pain is more acute and fixed, the Fever more intense, and the Breathing more difficult. In the *Peripneumony*, or Inflammation of the Lungs, all the Symptoms concur, but the Pain is not so great, though it is extended to the Back and *Scapula*; but there is a greater Oppression of the Breast, and Difficulty of Breathing, likewise the Spittle is tinged with dark coloured Blood.

An *Inflammation of the Stomach* may be distinguished from a *Cardialgia*; for though in both there is an Anxiety, Inquietude, with a pressing burning Pain about the *Præcordia*, yet in the former there is a Sense of the most intense Heat, and the Stomach will hardly bear either Food or Medicines; besides, there is a Fever, with a quick, unequal, depressed, and weak Pulse, none of which occurs in the *Cardialgia*. It is distinguished from an *Inflammation of the Liver*, especially of the hollow Part next the Stomach, in having a most violent, fixed Pain at the Pit of the Stomach; in the other it inclines more to the Right, towards the spurious Ribs, nor does the Pain and Anxiety increase from admitting Things into the Stomach.

Quinsies are of various Kinds: Sometimes the Inflammation besets the interior or musculous Parts of the *Larynx*, and then there is neither Redness nor Tumour externally, but a great Difficulty of Breathing, even to Suffocation, attended with an exquisite acute Fever, and it often kills in twenty-four Hours: This is called a *Kynanche*. Another Kind chiefly affects the inward Muscles of the *Pharynx*, and the Difficulty of Swallowing is greater than that of Breathing. This is also without any remarkable external Redness or Swelling, and is termed a *Synanche*. When a Redness and Swelling appear outwardly, and chiefly affect the Wind-pipe, or *Larynx*, it is called, *Parakynanche*; but if the Gullet or *Pharynx*, *Parasynanche*.

A *Quinsey* is distinguished into the *true* and *spurious*; the former proceeds from an *inflammatory Congestion* of the Blood, is a most acute Disease, and generally more inward. In the *spurious*, there is a Congestion of *Lympha* in the glandulous Parts of the Mouth, *Fauces*, and Neck; it is attended with a less dangerous but more tedious Fever. When the Tongue and Region of the Fauces are beset and covered with a *copious Mucous*, it is complicated with a *catarrhal Fever*; nor is it less familiar

miliar to the *Scorbutic* and *Cachectic*; the Fever is of longer Duration, and a fetid Smell proceeds from the Mouth.

The dry, *internal Quinsy*, or *Kynanche*, should not be confounded with the *Spasm* which constricts the Fauces of *hysterical Women*, and renders their Breathing and Swallowing difficult, and comes and goes without Danger; for the true, *internal, sanguineus Quinsy* is known by a burning, pricking Pain within the Fauces; the Tongue is red, tumid and turgid with Blood, nay, sometimes black; the Face looks red and inflated; the temporal Arteries have a strong Pulsation; some have a Head-ach, others are sleepy, and others faint away.

The *Phrensy*, or Inflammation of the Membranes of the Brain, is manifest from a furious *Delirium*, shining Eyes, which are set, as it were, in the Head, a burning Fever, continual Watching, a violent Pulsation of the Arteries about the Head and Temples. It differs from *Madness* in being acute, and is generally a dangerous Symptom of a Fever; from a *Delirium* in the Degree, which is milder and sooner removed. Melancholy and Madness are chronic Diseases. In the *Hydrophobia* the Patient cannot drink any Liquid, but often falls into Convulsions in attempting it.

An *Inflammation of the Liver* is either in the concave or convex Part. The former is known by Hiccups, Vomiting, Heart-burn, a Heat and Pain at the Pit of the Stomach, towards the Right Side; a Fever, a dry Cough, difficult Inspiration and Costiveness. In the latter, the Liver is affected with an erysipelatous Inflammation, with a heavy, constrictive, and pricking Pain in the spurious Ribs, with a Cough, Fever, and difficult Breathing; and in this it imitates the *bastard Pleurisy*, but is known from it by a milder Fever, easier Breathing, and the Pain being below the Diaphragm. Besides, a *bastard Pleurisy* commonly goes off on the seventh Day by Sweat or an Hemorrhage. On the contrary, in an Inflammation of the Liver, if the Cure is protracted, Convulsions supervene, and by reason of an Abscess it is apt to turn to a Dropsy, a Cachexy, or an Hætic.

A *simple Nephritis* is an Inflammation of the Kidneys, with a fixed Pain in the Loins, of the tense, pressing Kind, and continues long; whereas the Pain, in a Fit of the Gravel, is much more violent and sharp, and not quite so much confined to a Place, but extends itself towards the Sides; at length it is felt not in the Kidney but in the Beginning of the Ureter, and in the Ureter, from the Gravel or small Stones that pass through them; which does not happen in a *simple Nephritis*.

Of *external Inflammations* the *Erysipelas* is most frequent, which only affects the Superficies of the Skin with Redness, Tumour, and Pain; and is easily distinguished from a *Phlegmon*, which reaches to the subjacent Muscles. A *Phlegmon* is known from a *Gangrene*, because this penetrates not only to the muscular, but to the tendinous and nervous Parts. It has a greater Heat and Pain, enlarging itself with a hard Tumour and Redness, which at length changes to livid and black.

Summary of the BOERHAAVEAN DOCTRINE and TREATMENT of FEVERS in general.

THE greatest Caution is necessary in searching out the very hidden Nature of a *Fever*. In this Case we are not to assume any thing from Hypotheses, previously contrived, however ingenious they may seem; but we are only to consider the Appearances of the Fever present in the Body, and weigh each of them apart, that, by afterwards comparing them together, we may thence, by just Reasoning, be led to understand the proximate Cause of the Fever. When an hypothetical Method is taken to discover the Nature of Diseases, the curative Part may be founded on a false Hypothesis.

The only three observed Symptoms common to all Fevers, are, a *Shivering*, a *quick Pulse*, and *Heat*.

A *Shivering* is meant by Physicians to signify that Tremor or Shaking of the whole Body, which arises from a Sensation of Cold; as when a Person, being warm, suddenly exposes himself to the cold Air: And this Symptom attends every Fever which arises from internal Causes.

To denominate a Fever *acute*, the Rule is, that its swift Advance be attended with Danger; but the *slow* Fever is so called from its small Advance, whether Life be in Danger or not. Nor is the Quartan an Exception, since it hardly ever proves fatal, unless by some Error in the Patient or Physician, and ought, therefore, to be ranked among Diseases of a long Continuance, as well as a Hectic Fever, from whence very few escape. *Celsus*, therefore, very properly defines Diseases of long Continuance to be those in which neither Health nor Death is at Hand.

As *epidemical* Fevers arise from some common Cause, they have usually almost the same Course and Symptoms, and require the same Method of Cure: But *particular* Fevers, arising

from very different and often opposite Causes, require to be treated in a different Manner in different People. Even HIPPOCRATES has taken Notice of this Distinction in Fevers: But we much more frequently meet with acute Fevers epidemical, and slow ones more rarely, among which last Quartans are the chief.

As in all Fevers the Velocity of the Pulse is increased, it follows, that the Heart contracts, in Proportion, more frequently; and thence again, that the Causes from whence the Contraction of the Heart results, are increased. But in what Manner these Causes act, which excite the Heart to a quicker Contraction; and after what Manner, as in an intermitting Tertian, renewed every other Day, when it afforded no Appearances at all on the intermediate Day; these are hitherto concealed from all of us: For all that we know of the Nature of a Fever, we discover only by its inseparable Effects and Appearances; nor can human Understanding proceed farther in the Investigation.

Since the Dilatation of the Artery is synchronous with the Contraction of the Heart, the Pulse cannot be accelerated, unless the Contraction of the Heart becomes quicker at the same Time, as that is the only and intire Cause of the Dilatation of the Arteries. For all that has been said by some Authors, about Ebullition, Fermentation, or Effervescence of the Blood, &c. in the Cavities of the Heart, has been proved to be false, and contrary to Experiment; and it appears most evident, that the Cause of propelling the Blood from the Heart into the Arteries, does not reside in the Blood itself, but in the Heart, which immediately receives the Blood. A Fever may, therefore, deservedly be called a Disease in the Heart; since in every Fever the Action of that muscular Organ is changed, and that by being brought into more frequent and quicker Contractions.

It appears from Anatomy and Physiology, that the muscular Motion of the Heart renders its own muscular Fibres paralytic; and that by this Means the whole Heart is so disposed, that a new Contraction must follow the Moment after: For the Nerves sent to the Heart are so situated, that they must be compressed by the Dilatation of the largest Arteries, distended by the Blood expelled from the Heart, the Aorta, and the pulmonary Artery; during the Dilatation of which the venous Sinuses and Auricles of the Heart are likewise distended; and therefore the Influx of the Spirits through the Nerves into the muscular Fibres of the Heart, is thus impeded, while at the same time all the Blood is pressed through the Vessels dispersed through-

throughout the Substance of the Heart, which therefore looks pale during the Systole. Thus are the two Causes, absolutely required to muscular Motion, intercepted or removed; namely, the Influx of the Spirits, and of the arterial Blood. But in that Moment of Time, which the Heart, as it were paralytic, has its Cavities filled by the influent venal Blood, the Aorta is contracted, and, with great Force, urges the Blood through the Orifices of the coronary Arteries, throughout the whole Substance of the Heart, and, just now, the Nerves are no longer compressed, as the Arteries are then contracted, and the Sinuses and Auricles emptied; whence they freely transmit the Spirits sent from the Cerebellum, through the cardiac Nerves, to the Heart: And therefore the two Causes of muscular Motion will be renewed, and thence the Contraction of the Heart will be instantly repeated.

A Quartan is usually accompanied, in the Beginning of a Fit, with a violent and long-continued Coldness; but in the Beginning of a Fever of one Day's Continuance, there is often only a very slight Sense of Cold perceived.

There very frequently is so great a Weakness observed in the Pulse, during the cold Fit of a Fever, that the Stroke of the Artery is hardly perceptible to the Touch; and this more especially in old Persons afflicted with the Quartan Fever in Winter; and then also the Quickness of the Pulse is so very great, that it seems rather to tremble, than to be made up of a distinct Dilatation and Contraction. But where there is so great a Celerity of the Pulse, as to be ten times quicker than what is natural, no one can distinguish its Numbers; there is only a surprizing undulatory Motion perceived by the Finger. If the Hand be applied to the Breast, the Heart seems to tremble, instead of beating powerfully against the Ribs, as is usual in Health; though, in this Case, the Artery will sometimes dilate more powerfully, and then again appear extremely weak and quick: And sometimes a true Intermision of the Pulse may be discerned; and then the Patient is apt to complain that his Eyes are dim, or that he cannot hear, or scarcely feel. Here the same thing happens as before Death in the Dissection of living Animals. We there see the Heart, being no longer able to expel its contained Blood, tremble, and evacuate only a Part, being now unable to dilate the Arteries: In the mean Time the Auricles and venous Sinuses are greatly distended, and, after a few Moments, become suddenly contracted, forcibly projecting their Blood into the Ventricles of the Heart, which, being then irritated by the Quantity and Impetus, is very powerfully contracted. Then again it trem-

bles and languishes till it be excited by the same Cause, or till all Motion ceases by the Death of the Animal.

The lively Colour observed in a healthy Person arises from the Vessels filled with red Blood; so that when the Force of the Heart, from any Cause, begins to be weakened, not being able to propel the Blood to the Extremities of the Body, and the Arteries, at that Time, contracting by their own Elasticity, especially towards their Extremities, which are the least urged by the Force of the Heart, the Blood is by that Means repelled into the smaller Branches: Therefore the subcutaneous Arteries, which are some of the smallest in the Body, will be, in a great Measure, emptied; whence a Paleness must arise.

The various Parts of the Body are the more flexible, in Proportion to the greater Abundance of Humours, with respect to the solid Parts: But in the Beginning of a Fever, the Force of the Heart being weakened, cannot fill the smallest Vessels in the extreme Parts of the Body; and therefore these being contracted, and repelling back their contained Juices into the larger Vessels, this will be one Cause of the Rigour or Stiffness in the Beginning of Fevers. Besides this, the Cold, which contracts every thing, will increase the Cohesion of the solid Parts, and consequently augment their Stiffness. Since therefore these two Causes concur, it is no Wonder that a great Stiffness arises in the Time of a cold Fit of a Fever.

In intermitting Fevers, if the Patient is not very weak, or advanced in Years, the hot Fit is so much the more intense, as the preceding cold Fit was more violent.

It is one of the best Signs, if the febrile Heat be equally diffused throughout the whole Body, even to the Extremities; for it denotes that the Vessels are pervious, and that the Blood has a free Circulation; but in the worst Fevers, which are then commonly fatal, there sometimes happens an intense Heat, perceived about the vital Organs, while, at the same Time, the extreme Parts of the Body are cold; which denotes the Circulation to be deficient in those Parts; and that the impervious Blood begins to stagnate, or accumulate about the vital Viscera; while, in the mean Time, the Heart being more swiftly contracted, propels the Blood with a great Velocity through the Vessels, which are yet pervious in the Parts next adjacent.

When, in ardent Fevers, the Blood, by an inflammatory Tenacity, stagnates in the smallest Arteries, these, being distended, compress the adjacent secretory and excretory small Ducts; and hence the whole external Skin, Tongue, inside of the Mouth, Fauces, &c. are invaded with a burning Heat; and

and when the Patient recovers from these most dangerous Diseases, almost the first Symptom of Nature's overcoming the Disease, is a Return of Moisture into all these Parts.

It is a general Indication in every Fever, so to moderate the Force of it, that it may not, by destroying the Solids, and thickening the Fluids, produce Inflammations, Suppurations, Gangrenes, &c. nor yet to let it subside so low as to be incapable of attenuating, changing, moving, and expelling the morbid Matter: Nor is it possible too much to inculcate this general Rule, as it is of the greatest Moment. Many have entertained too ill an Opinion of the Name of a *Fever*, and believe that it ought ever to be engaged with the most forcible Methods; when, at the same Time, it appears from the Writings of the Ancients, and the Observations of the best Modern Physicians, that a Fever often most happily cures itself, provided it be kept under a due Regulation, and moderate Degree.

A Fever may terminate in Health two Ways: as when the morbid Matter is so changed by the Force of the Fever itself, that being assimilated with the healthy Humours, it may be freely carried through the Vessels, without any Disturbance to the equable Circulation; or else, the same morbid Matter being subdued, so as to have a pervious Passage, is then expelled out of the Body, and this either by an insensible or a sensible Evacuation.

Sweats, Vomiting, and a Diarrhoea, are Evacuations only serviceable in as far as they expel the febrile Matter, either wholly or in Part from the Body, whereby the Disease may be entirely removed, or at least alleviated. The principal Sign whereby the Usefulness of these Evacuations is known, is derived from their Effects. Now there is great Reason to hope that a Vomiting, Sweat, or Diarrhoea, will prove useful, if they happen after the Coction or Height of the Disease; for those which come on in the Increase of the Disease, are rather symptomatical than critical Evacuations, and often do more Hurt than Service.

Old People bear Abstinence the most easily: This is indeed true while they are in Health, because they are nourished neither for Increase nor Strength, but only to support their Being; and in these the Cavities of a great Number of Vessels are either entirely closed up, or very much lessened; whence a less Quantity of Humours is required to flow through them: Add to this, that all the Vessels being now more rigid, yield less to the impelled Liquids; and many of the Humours being expelled from the Body in Fevers, will occasion Dryness from the

Diminution of the Quantity of Liquids. Upon these Accounts Disorders happening in old Age will be increased by a Fever, if the Patient is not relieved by a moist and softening Diet. And here more especially the Food must be given often, and in small Quantities, because the weak vital Strength of the Aged would be destroyed by greater Quantities; and they require but small Supplies, provided they are frequently administered. Add to this, that Abstinence or Fasting in great old Age, often brings on a fatal Syncope; because the Quantity of Humours being lessened, the rigid Vessels do not contract themselves in Proportion; so there will be no Action of the Vessels upon their contained Fluids, whence ensues Stagnations and Death; and thus the Reason is evident, why Abstinence is so prejudicial to old Persons in Fevers.

In consumptive Persons, whose Lungs waste away by a slow Suppuration, there is a continual slight Fever, which often increases every Day at the Time when fresh Chyle is plentifully supplied, and driven, together with the Blood, through the Lungs; some Practitioners, therefore, believing this Fever to be of the intermitting Kind, have made Trials of the Virtues of the Bark, but always with the most fatal Success; for the purulent Cause remaining, the febrile Motion must necessarily be suppressed, whereby the collected Matter ought to have been expelled; whence the greatest Anxieties, and sometimes Death itself, have followed from that Practice. The whole Cure of such a Disorder consists in washing out, as it were, and detarging the purulent Matter; and then in consolidating the Parts thus cleansed from the Matter, as in the Cure of a clean Wound.

The more severe a cold Fit is in the Beginning, so much the more dangerous it is; for this Coldness denotes a Diminution of the Circulation, and the less the Circulation, the nearer the Disease approaches unto Death, wherein the Circulation wholly ceases: But if, at length, the vital Powers overcome this Coldness, being irritated by the same Cause which produced the Fever, they render the circulatory Motion so violent or swift, and excite so strong a Heat, that the worst Consequences of every Kind may be feared: For the very tender Vessels of the Encephalon and Lungs, cannot bear so great a Force without the greatest Danger; and the great Heat following after the most intense Cold, may dissipate the most fluid Parts of the Humours, and inspissate the rest; whence there is the greatest Danger, lest the Humours, becoming unfit for obtaining a Passage, should adhere to the narrow Extremities

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of the Arteries, and so produce Inflammations and Gangrenes of the most pernicious Kind.

A severe Tremor is bad in Fevers, as it denotes that both the nervous and arterial Fluid is either deficient or unpassable; and, at the same Time, such a violent Trembling arising much in the Beginning of a Fever, denotes a great Strength of the efficient Cause, capable of exciting so extraordinary a Disturbance in a Body which has, perhaps, been hitherto healthy; and likewise because a great Trembling indicates a proportionable Obstruction opposing the Circulation of the Humours.

Moreover, Tremblings which arise in the Course of Fevers, unless they precede or accompany critical Evacuations, are often of the worst Import, as generally indicating that the Matter of the Disease inclines to the Head, disturbing there the natural and equable Motion in the very Origin of all the Nerves, the medullary Substance of the Encephalon.

The general Cure of Fevers requires four Things; a Correction or Expulsion of the acrid irritating Matter; a Dissolution and Expulsion of the febrile Lensor; a Mitigation of the Symptoms; and lastly, the Re-establishment of the Patient in perfect Health.

Those Fevers are termed continual and putrid, wherein the Humours degenerate much from their natural and healthy State; and, at the same Time, incline to Putrefaction; and hence the various Degrees of Malignity are observed, according to the greater or less Intensity or Degeneracy of them.

A Dryness of the whole Skin, Nostrils, Mouth and Tongue, arise from a Dissipation of the most thin and watery Juices of the Blood, by the febrile Heat; and partly because the rest of the Blood becoming unpassable, and adhering in the larger Vessels, distends them so as to compress the adjacent smaller Vessels; and therefore in such Patients the Skin appears rough and dry, as the subcutaneous Vessels, distended with unpassable Blood, compress the very subtile exhaling Vessels, while, at the same Time, there is a Deficiency of the thin serous Parts of the Blood; the same holds true also in the Eyes, Nose, Mouth, and Tongue. Hence HIPPOCRATES pronounces, that *those who die of an ardent Fever perish with Dryness.*

GALEN observes, that an exquisite ardent Fever retains all the Signs of an exquisite Tertian, and that it differs only in not invading with a Rigor or Shivering, and in not coming to perfect Intermissions: For which Reasons he ranks an ardent Fever, not among the *Synochi*, or Continent, but among the continual remitting Fevers. But in the Fevers which he calls *tertianary*

tiary (τρίαιον) or *semitertianary*, which he likewise refers to an ardent Fever, the Exacerbations happen always on unequal Days. It should indeed seem probable, that the ardent Fever has something of the Nature of an Intermittent; since frequently when such Fevers are extended to a great Length, they, at last, change into Intermittents; and even, sometimes, when intermitting Fevers spread epidemically, and appear early in the Summer Months, they often pass under this Appearance.

The Blood being deprived of its thinnest Parts in ardent Fevers, tends to Concretion, and begins to stagnate in the Arteries; whence it is accumulated in those Vessels, and distends them; while, in the mean Time, they press out only the more fluid Parts of the Blood into the Veins; whence, though a Vein be opened frequently in such Diseases, it is manifest only that Part of the Blood is removed, which is best disposed to flow through the Vessels; whereas an Hemorrhage from the Nose, discharging the Blood from the Arteries themselves, turning off the Impetus and Quantity of Blood, more especially from the Encephalon, whose Functions, in these Diseases, are usually so much disturbed.

The best Hemorrhage is that which happens on a critical Day; viz. the 4th, 7th, 11th, 14th, 17th, 21st, &c. called legitimate critical Days; but those happening on some incidental critical Day, as the 3d, 5th, 6th, or 9th, are less salutary; if they fall out on other Days, they are altogether to be suspected; and the same will hold good of the other critical Evacuations.

A Redness of the Face, beset with Drops of Sweat, is a very bad Sign in an ardent Fever; because it denotes an inflammatory Spissitude of the Blood opposing its Passage through the Vessels, and that it is either forced into other improper Vessels, or else adheres about the smallest Extremities of the sanguiferous Arteries, and that a very small Portion of it can, as yet, be expressed; as also, that Death being now at hand, the Extremities of the small exhaling Vessels in the Skin are so relaxed, as to transmit a thick and gross Sweat, according to a just Observation of HIPPOCRATES—*The general Cause or Reason of Sweats ought to be known; some are from a Relaxation of the Parts of the Body, and others from the Violence of Inflammation.*

A Swelling under the Ear, not coming to Suppuration, is destructive; When Parotids arise in an ardent Fever, it is a Sign that the Febrile Matter is critically deposited about the Glands there seated; and as the Blood in this Fever is de-
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prived of its most fluid Parts; and, at the same Time, has acquired a greater Acrimony, therefore a mild Resolution of these Parotids cannot be expected, since, to effect that, a mild State of the Humours is necessary, a sedate Motion of them, and that the obstructing Matter be not over compact. It is therefore a Suppuration only that can take Place here, which, if not procured, a worse Manner of terminating the Inflammation must be expected. Sometimes the swelled Parotids suddenly disappear, from the morbid Matter returning again into the Blood; whence the Worst returns, and even Death itself may be expected in an ardent Fever.

HIPPOCRATES justly admonisheth to *consider carefully whether the Fever is abated or increased*. For if it suddenly increases when the Parotids disappear, we know that the febrile Matter mixing again with the Blood, produces more Disturbances; and that therefore a bad Termination of the Disease is to be feared. But if no such Increase of the Fever happens, there is Reason to hope that the Matter will, in a little Time, escape by other Passages, or be deposited upon some other Part. Neither yet must we believe Health to be always an infallible Consequence of Parotids coming to Suppuration in ardent Fevers: For Crises made by Abscesses or Depositions, are of all the unsafest.

A Constipation of the Bowels in ardent Fevers is never of Service; for since these Fevers are kindled up by the Bile, rendered more acrid or corrupt; and as even a sound Bile is soon corrupted by an immoderate Degree of Heat, it must be evidently more useful for these foul Humours to be discharged from the first Passages; otherwise, by the Access of Air, with the Heat and Stagnation, they may degenerate into the most malignant Putrefaction in a very short Time. Hence it is that Clysters are so serviceable in ardent Fevers, not only as they dilate, relax, and cool, but also as they discharge out every thing putrid lodged in the Intestines. It is therefore no bad Sign for the Belly to be looser than ordinary in these Fevers.

An ardent Fever differs from a putrid Synochus or Continēt, inasmuch as its Course is not one continued Strain from the Beginning to the End, but is attended with remarkable Fits of Remission and Exacerbation. It is distinguished from intermitting Fevers, in that the Force of the Fever does not perfectly cease; and from the slighter continual remitting Fevers, by its intense Heat chiefly, which is greater about the vital Viscera, and more moderate towards the extreme Parts, attended with unquenchable Thirst, and a Dryness of the whole Body.

An Inflammation may be excited throughout the whole Body, although the Blood continues to flow through the greatest Number, if not all the sanguiferous Arteries: But that such Inflammation does obtain in an ardent Fever, we are taught from the Redness of the Face, and frequently of the whole Skin, sometimes continuing so even after Death. The Inspection of Bodies dying of this Fever, demonstrates the cortical Substance of the Brain, in which naturally there is no red Blood to be found, to be all over red, as if it were artfully injected.

They are much deceived who judge that Sweat ought to be promoted, thinking thereby to evacuate all the febrile Matter, because in an Intermittent Fever the Fit goes off with a copious Sweat. Daily Observations teach us, that those are much more difficultly recovered from Intermittent Fevers, who seem, as it were, to melt away by those most profuse Sweats; neither is their Cure practicable, unless these Sweats be first suppressed. Hence also the Sweat, which attends at the Close of the Fit, is to be moderately promoted by Flesh Broths, Ptisans with Wine, and the like, which afford Plenty of liquid Nourishment: But by no Means by Medicines, nor the Heat of Bed-cloaths, lest with such Sweats those Fluids fly off which ought to be retained. The Weakness and Dejection which follow upon those profuse Sweats, evidently demonstrate how prejudicial they are.

Quartan Fevers, which have been disturbed by no powerful Medicines, and have been gradually removed by a proper Regimen, in the Spring Season, have left People more strong and firm, and less subject to Diseases than before. For these Fevers contain a Sort of Epitome of that Kind of Life which CELSUS recommends to some Persons in his first Book. Intense Cold is followed by great Heat; during the Time of the Paroxysms, the Patients have generally an Aversion to all Sorts of Food, to which they often have a strong Appetite on the intermediate Well-days: Moreover, by a long continued Quartan the Body is frequently much emaciated, all the Fat being dissolved and carried off by Urine, and the other Emunctories, even as much as by Mercury itself, or sudorific Decoctions; whence an almost radical Change of the Humours is obtained, by a Resolution and Expulsion of the Old, so that the Body is aptly disposed for the Reception and Restoration of new vital Matter; and thus, by a prudent Management in these Fevers, will the Constitution be disposed for Longevity.

If now it be considered, that in the cold Fit of Intermittent Fevers the whole Body trembles and shakes violently often for several Hours, almost as much in the internal as in the external

ternal Parts; that the Extremities of the Arteries being contracted, propel the Humours back into the larger Trunks, as evidently appears from the Paleness, and an Opportunity they afford for happily removing the obstructing Matter adhering to the Extremities of the Arteries; it will not seem wonderful, that many Disorders should be thus relieved or removed, which are not at all affected by other Medicines; more especially as soon as there follows a rapid Motion of the Humours through all the Vessels, whereby the obstructing Matter which was lodged in the Viscera, being rendered moveable by the repeated Concussions, is further resolved. Hence the Reason appears, why these Fevers so frequently remove the most inveterate Disorders from the Body, after they have been in vain attempted by other Medicines.

The best Methods recommendable towards the Cure of these Fevers, are such as conspire together with the Disease itself; to resolve what is concentered, to open the obstructed Vessels; and thus to restore the equable and free Circulation of the Humours through the Vessels. In the Spring Season, and in juvenile Patients, the hotter Medicines must not be used: Autumnal Fevers, on the other hand, more especially those which continue on till the Winter, require warmer Medicines, especially if the Patient's Strength is weakened by the Disease, or if the Body languishes by an advanced old Age; for the *Rad. Contrayerva. Serpent. Virgin. Saffron*, and the like most penetrating Aromatics, are of the greatest Use. In cold phlegmatic Habits, alkaline Salts are the best Aperients, which yet are often injurious to warm and bilious Constitutions; and therefore those of the saline neutral Kind are preferred, as Nitre, *Sal palychrest. Tarr. vitriolar. &c.* Purges and Vomits are not only useful as Evacuants, but also because they wonderfully stimulate and shake the Frame, so as to change its whole Condition. The *Cortex Peruv.* should never be given in Fevers, where there is a continual fixed Pain, or the Sense of an inward burning Heat, with other Symptoms of an Inflammation.

Vernal intermitting Fevers are of so mild a Disposition, as to require no Medicines, but generally go off spontaneously. They are only observed stubborn in such, who, having their Blood of a very weak Crasis, or Texture, it is so easily dissolved, that they waste away with profuse and weakening Sweats; but even in these they are curable, especially by the Use of the Bark: But Autumnal Intermittents are much more difficult to remove, and often require the utmost Attention of the Physician, with every Assistance of Art, in order to cure them.

An acute continual Fever, Inflammation, and the Organ, whose Functions are thereby injured, are three Things chiefly to be considered in acute inflammatory Diseases.

In a true Phrenzy the Brain is primarily affected in an acute continual Fever; that is to say, the Cause of the Disease is not produced in some other Part of the Body, and translated from thence to the Brain; but is seated in the Brain itself, or its investing Membranes, from the very first Attack of the Disease, although, by the Violence of the Fever, the Disorder may be increased, which is already seated in the Brain. In the symptomatic Phrenzy, the Cause lodges in some other Part, and is afterwards thence translated into the Encephalon.

A considerable Degeneracy of the Humours is scarce ever observed without a concomitant Disturbance of the Encephalon.

A black Tongue denotes either a Deficiency of the thin Lymph of the Blood, or that the larger Vessels, distended with the unpassable Blood, compress the adjacent smaller ones; whence the exhaling arterial Ducts at the Surface of the Tongue become dry and gangrenous: Hence a black Tongue, especially if it be dry at the same Time, presages the very worst Condition of the Humours.

Lethargic, comatous, and cataleptic Disorders, are of the worst Prefage in a Phrenitis.

A Flux from the Bowels is salutary, not only because it discharges the morbid Matter, but also because it empties the abdominal Viscera of the Humours which flow thither, and lessens the Resistance to the Impulse of the Blood; and by that Means happily diverts the Impetus and Quantity of the Humours from the Head; an Event of the utmost Consequence in the Cure of a Phrenzy.

The most dangerous Phrenzy may arise from sleeping in the open Air, with the Head exposed to the hot Solar Rays.



Of INTERMITTING FEVERS, or AGUES.

THERE is no Fever which discovers the *Nature* and *Genius* of the febrile Motion in general, and infects the Vessels and nervous Parts, so much as the TERTIAN. It spares neither Age, nor Temperament, nor Sex; and makes its Onset every other Day.

If

If it is of the regular Kind, it is attended with the following Symptoms: At first, the Head aches, the Limbs seem weary; there is a Pain in the Loins about the first *Vertebra* of the Back, which ascends towards the *Epigastrium*, with a painful Sense of a Tension in the *Hypochondria*, and Costiveness; then comes on a Coldness of the external Parts, especially of the Nose and Ears, a Stretching, Yawning, a Shivering and Shaking, sometimes even to make the Bed tremble under the Patient; the Pulse is small, contracted, and weak; again the Patient is troubled with Thirst; then follows a *Nausea*, with a fruitless Reaching to vomit; again, a pituitous, bilious, or green Matter is brought up, commonly joined with a troublesome Cough, and an Expectoration of Phlegm, derived from the acid clammy Crudities of the Stomach; to these succeeds an anxious, burning, and dry Heat, which pervades the whole Body. The Face, which was collapsed and pale, the contracted, rigid Skin, and the empty Vessels of the Hands and Feet, begin to rise, grow red and turgid; the Pulse becomes more great, full and quick; the Restlessness increases, the Breathing is more difficult; and the Patient, with his Eyes almost closed, begins to talk a little wildly.

Afterwards, the Symptoms begin to abate, the Heat becomes mild, the Skin relaxes and grows moist; the Urine is of a flame Colour, but without a Sediment; the Pulse is more moderate, and then a Sweat breaking out, terminates the Paroxysm. The Duration of the Fit is uncertain, sometimes it ends in ten or eleven Hours, and sometimes not till twenty-four. On the *intercalary Day*, the Body is still feeble and coldish, with a Disposition to shiver, the Pulse is slow and weak, the Urine is turbid and deposits a Sediment, or there is a *Nubecula*, which shews a Disposition thereto.

In the BASTARD or SPURIOUS TERTIAN, the Symptoms are milder, the Heat is not so burning, the Vomiting is not so frequent, and the Urine is not so high-coloured; but then it is a more lingering Complaint, and on the well Day there is a Lassitude and Want of Appetite. This attacks Men of an inactive Disposition, and Women whose Bodies are of a loose Texture, in the Autumnal Season.

The Fit of the IRREGULAR TERTIAN observes no particular Time, for it sometimes comes on in the Morning, sometimes in the Afternoon, in the Evening, or at Midnight. The Paroxysm is sometimes longer, sometimes shorter; the Urine lets fall no Sediment within the Time of Remission or Intermision; the Sweating is either too sparing or too profuse. When the Fit is off, several unusual Symptoms may appear.

appear, as a Looseness, a Bleeding at the Nose, Sickness at the Stomach, a violent Heart-burn, Pains in the Belly, or the Gripes. These Sort of Agues are generally EPIDEMIC, and most commonly appear in the Summer and Autumn.

Sometime a *Tertian Ague* is DOUBLE, which may be distinguished from a *Quotidian*, by the Time of the Fits, which is not the same every Day, but every other Day.

There is sometimes a CONTINUAL TERTIAN, which begins with Shivering and Shaking, an Anxiety, Vomiting, Loss of Strength, and then a violent Heat. The Fits do not intermit, but only remit. The Pulse continues frequent with Heat and Debility, and all the Symptoms return with fresh Vigour every other Day; but at length admit a perfect Intermission.

AN ENDEMIC TERTIAN is proper to certain Places; as a low Situation, and full of Marshes, producing a great Number of Gnats and other Insects, like some Parts of *Kent*, and the Hundreds of *Essex*. In such Places the Natives themselves have a Spice of it every Year, and Strangers seldom or never escape, without a Preservative, which is only the Bark infused in Brandy, with a little Snake-Root, of which two Ounces Night and Morning are to be taken. This kept me in Health for a whole Year, in the Hundreds of *Essex*, and not only preserved me from the Endemic Ague, but from a dangerous malignant Fever which then raged in those Parts.

A QUARTAN AGUE has two Fits in four Days, or two Days quite free from a Fit.

It begins about Four or Five in the Afternoon, sometimes sooner and sometimes later, with a great Lassitude, Stretching, a blunt Pain in the Head, Back, Loins and Legs; the Feet and Hands are cold, the whole Body is pale; the Face and Nails livid, to which Shivering and Shaking supervene. The Tongue and the Lips tremble, the Breathing is difficult, with Restlessness and Tossing; the Pulse is contracted and hard, and sometimes unequal; and there is an Anxiety about the *Præcordia*. These Symptoms continue about two or three Hours; in some the Body is costive, in others there is a *Stimulus* to Stool and to make Water. In some there is a *Nausea* or Vomiting, with Stools. Some, advanced in Years, have their Minds pretty much disturbed; the Heat comes on gradually, not burning but dry; the Pulse becomes equal, quick, and large, but the dull Pain in the Head remains, with a *vertiginous Affection*; the Skin becomes only a little moist, and in about four or six Hours the Symptoms vanish, except a dull Pain in the Bones, Joints and Feet. The Urine in the
Fit

Fit is sometimes thin and watry, sometimes thick and with a Sediment.

Sometimes a *Quartan Ague* is DOUBLE, that is, when the Fits come on every other Day at different Hours; and it is SPURIOUS when a Paroxysm begins at any other Time of the Day but that abovementioned. It is said to be CONTINUAL, when on the intercalary Days there are Shiverings and Pandiculations, with a greater Heat than usual, a quicker Pulse, a Want of Appetite, a Debility, a Dryness of the Mouth, a Lightness of the Head, a disturbed Sleep, and a reddish Urine, with a thick rose-coloured Sediment.

A QUOTIDIAN AGUE or *Fever* returns every Day, and is not so common as the *Tertian* or *Quartan*.

The Accession of this Fever is about four or five in the Morning, with Cold and Shivering; to which succeeds a *cardialgic Nausea*, and Inflation of the Belly; in some a Pain in the Head, in others fainting Fits, in most Vomiting or Stools, or both. Then comes on a moderate Heat, with Thirst, but not very intense. The Pulse, which was before irregular and weak, becomes more quick, but not very hard. The Urine is not of a Flame, but rather of a Citron Colour, and turbid. Some are exceeding sleepy. At length a moderate Sweat supervenes; and in about ten Hours, or longer, the Fit goes off, leaving the Body dull and heavy.

When the Disease varies from this Type, it is called *spurious* or *anomalous*.

From these Symptoms it appears, that the whole nervous System is exagitated, and suffers greatly by spastic Constrictions, which proceeding chiefly from the *Medulla Spinalis*, affect preternaturally not only the Coats of the Vessels, but all the Fibres throughout the Body, thereby greatly disturbing the Motion both of the Solids and Fluids.

The *material Cause* of this, and all other Fevers, is a Fluid of an active Nature endued with a *caustic Acrimony*, which sollicit the internal and exquisitely sensible Parts to *spastic Contractions*. It is generated chiefly in the *biliary Ducts* and Flexures of the *Duodenum*, where the vitiated, bilious, salival, and pancreatic Juices meeting with the Crudities of a bad Digestion, ferment together, and not being timely expelled, become virulent. This Matter passing through the Lacteals into the Blood, and thence into the nervous Parts of the Head, *Medulla Spinalis*, Intestines, and Stomach, as also into the nervous Coats of the *excretory and secretory Ducts*, excites an universal Spasm, which first forces the Blood to the interior and greater Vessels; and afterwards the *systaltic Motion* of the Heart and Arteries being

increased, the Motion of the whole Mass of Blood and Humours is accelerated, and the Obstructions of the small Vessels of the nervous Parts are opened; upon which the *Spasm ceasing*, the excretory Ducts are relaxed, the febrile Matter passes off through the Pores of the Skin by Perspiration or Sweat, and the Fit ceases, till by the Generation of fresh Matter a new Paroxysm is brought on. HOFF.

It appears from the Experiment of *Langrish*, that the Blood in *Quotidians* is more dense and tenacious than in *Tertians*; in *Tertians* than in *Quartans*; so that in *Quotidians*, *cæteris paribus*, it comes nearest to an *inflammatory State*; and it is commonly observed, that if the Fever, from a *regular Tertian*, runs into a *Semitertian* or *Quotidian*, or greatly anticipates the Time of the *regular Paroxysm*, a remitting or continual Fever is forthwith the Consequence.

It is necessary to be known, that from *February* to *August*, Agues are said to be *Vernal*; and from *August* to *February*, *Autumnal*; and that in the Beginning of Autumn they often resemble continual Fevers, and require a different Manner of Cure.

No Fever emaciates a Patient sooner than a *Tertian*, if attended with a more intense and lasting Heat. The *Autumnal* and *Winter Agues* are obstinate and hard to cure, especially if there is any Fault in the *Viscera*: On the contrary, the *Vernal* and *Summer Agues*, if rightly treated, are easily vanquished.

Agues, injudiciously managed, terminate in cruel and incurable Diseases, as a *slow* or *hectic Fever*, a sudden *Swelling of the Feet*, a Dropsy, oedematous Tumours, the Jaundice, scorbutic Cachexy, the dry Asthma, the hypochondriac Passion; and in Infants a fatal Epilepsy. *Sydenham* observes, that a Swelling of the *Abdomen* in Children, and of the Legs in Adults, denotes a Solution of the Disease; and that a Pain in the *Tonsils*, Hoarseness, hollow Eyes, and a ghastly Countenance, portend Death.

As to the Cure, when a Load of *vitiating Humours* in the Stomach and *Duodenum* require Depletion, which is known from having indulged in too plentiful Eating, from an Anxiety of the *Præcordia*, from Eructations, and a bitter Taste in the Mouth, a Vomit, after the first Fit, in the Time of Intermision, is to be given. In tender Constitutions, gr. x. of *Ipecacuanha* may be given alone, or ʒj. of the *Vin. Ipecac.* but to the more robust, a Grain or two of *emetic Tartar* may be added. Or if it is necessary to purge at the same Time,

1. R. *Sal. Elishamensis*. ʒss. *Tartar. emetic.* gr. ij. vel iij.
M. f. Pulvis dissolvendus in ℥j. Aquæ puræ tepidæ, & duabus a finito Paroxysmo horis sumendus.

The Evacuation ought to be facilitated with Draughts of Water-gruel made fat with fresh Butter. Then take the following *Electuary*, which will crush the Disease in the Bud.

2. R. *Rob. Sambuc.* ʒj. *Cort. Peruv.* ʒv. *Pulv. Flor. Chamæmel. vulg.* ʒij. *Extract. Centaur. min. Pulv. Caryophyl. an.* ʒss. *Syr. Limon. q. s. M. f. Electuarium. Aliquando addi potest, Calc. Antimon. ʒss. ad Diaphoresim promovendam, Dosis ʒss. singulis binis horis, finito Paroxysmo.*

Or, if a liquid Form is more agreeable,

3. R. *Cort. Peruv.* ʒj. *Cort. Eleuther. Cinnamon. Sal. Tartar. an.* ʒj. *Aq. Menth. vulg. simp. Vin. rub. an.* ℥j. *Digerantur leni calore. Colatur. adde Syr. Cort. Aurant. ʒss. M. Dosis ʒss. omni bihorio. Vel Cort. Peruv. ʒj. Aq. Vitæ ʒviij. Digerantur in vase clauso per triduum, identidem agitando. Tinctura a Pulvere per inclinationem secernatur. Dosis ad Cochleare unum in haustu Vini generosi, sæpius in die iteranda.*

But if any thing forbids *Vomiting*, and yet there is Plenty of ferous, crude Humours which require Evacuation, we must begin the Cure with deterfive and aperient Salts.

4. R. *Sal. Ebshamens.* ʒss. *Sal. Ammoniac. Ocul. Cancr. an.* ʒij. *Nitr. purificat. ʒj. M. f. Pulvis, capiat. ʒj. omni bihorio, in uncis aliquot Aquæ puræ vel Menthæ vulgaris; superbibendo semper vasculum infusi Theæ.*

When the whole intestinal Canal has been cleansed by these Salts, duly repeated at proper Intervals, and the Ague still continues, add an equal Weight of Bark thereto, or give the *Electuary* above prescribed.

When the Patient is obnoxious to the hypochondriac Passion, the Stomach inflated, and the Body costive, neither *Vomits* nor Salts must be ventured upon, but carminative and emollient Clysters; or,

5. R. *Mannæ elect.* ʒij. *Sal. diuret. ʒij. Ol. Junip. gut. iij. M. capiat. ex Liquore quodam appropriato.*

But it must be remembered, that neither Bleeding, nor Emetics, nor Cathartics, nor the Bark, nor any Strengtheners nor Astringent is to be administered or given in the Fit, or near the Time it usually comes on.

If a *Tertian* is autumnal, obstinate, or changes to a *Quotidian*, the *antefebri*le Potion of *Crollius* will be proper.

6. *Sal. Absynth.* ʒj. *Spir. Sulph. ʒj. Aq. Fœnicul. ʒiiij. M. f. Potio.*

Let the Patient take it just as the Fit comes on, and be well covered with Bed-cloaths.

Bleeding is proper only in a *hot Season*, when the Heat of the Patient is excessive, attended with a *Delirium*, and in the Prime of Life, full of Blood, and subject to Passion.

Opiates will appease the Symptoms, but they disturb the *Crisis* and protract the Disease. Likewise *aluminous*, *Chalybeate* and *vitriolic Remedies* will stop the Fits; and if they are given to Patients of the lowest Class, Care must be taken that they sweat after them, by drinking hot Decoctions, or by Exercise: Of this Kind is the following from *Boerhaave*, but well corrected by an Aromatic:

7. R. *Alumin. rup.* ʒj. *Nuc. Moschat.* ʒij. *Pulv. Bol. Armen.* gr. xij. *Horá una ante Paroxysmum hauriendus.*

Absorbents have often a happy Effect in these Diseases, but if given in too great a Quantity, they will not dissolve in the Stomach. *Harris* advises ʒij. of the simple Powder of *Crabs Claws*, two Hours before the Fit, and to be repeated in an Hour, in Mint-water; no Small-beer is to be drank for eight Hours after. It may be repeated in the same Manner against the next Time the Fit is expected: as likewise a third Time.

Sydenham, when the Patient is troubled with almost a continual *Vomiting*, directs the following saline Mixture, which may be taken six or eight Times in the Space of two Hours, if required.

8. R. *Succ. Limon. recent. express.* *Cochl.* j. *Sal. Absinth.* ʒj. *M. f. Potiuncula.* This may be taken in the Fit.

It likewise has a Tendency to cure the Ague, for some have given it in a somewhat larger Dose for that Purpose, with an Ounce or two of some distilled Water.

Longrish asserts, that in long continual Agues or intermitting Fevers, which have baffled the *Bark* and many other Medicines, he has met with more Advantage from *Rhubarb* and *Calomel* exhibited in small Doses, than from any thing else he had tried.

In obstinate *Quartans*, *Hoffman* greatly recommends the following:

9. R. *Cors. Peruv.* ʒiij. *Reg. Antimon. Medicin.* ʒij. *Mercur. dulc.* (qui non terendus cum pulvere propter Salia, sed cuspidatum cultelli miscendus) *Croci Mart. tenuissim.* *Nitr. Vitriolat. an.* ʒj. *Olei Menth. gut* iv. *M. f. Pulvis cusp.* ʒss. vel ʒj. cum *Rob. Sambuc.* & *Syr. Caryophyl.* in forma *Boli mane & vespere poterit assumi, cum Regimine.*

This

This Method is confirmed by *Huxham*, who says, the *Bark* frequently proves ineffectual, without the Help of proper *Alexipharmacs*, as, *Rad. Serpentar. Virgin. Contrayerv. Myrrh. Camphire, &c.* After four or five Paroxysms, warm Chalybeates may be added with very great Success.

10. R. Cort. Peruv. ℥ij. Limatur. Chalyb. 3vj. Serpent. Virginian. 3fs. Conserv. Cort. Aurant. 3ij. Syr. Cort. Aurant. q. f. M. f. Electuarium. Capiat. Quant. Nuc. Moschat. ter quaterve in die.

But when the Patient has a yellow Cast of Countenance, a tense Abdomen, and a very costive Habit of Body, mercurial, saponaceous Deobstruents, with *Rhubarb*, *Aloetics*, or *Sal. Diureticus*, should be premised to or joined with the Bark.

11. R. Sapon. Hispan. 3ij. Pareir. Brav. 3j. Rhubarb. Aloes succotrin. an. 3iij. Syr. Cort. Aurant. q. f. M. f. Electuarium cap. 3fs. ter in die.]

Mead affirms, he has sometimes found it necessary to add so much *Rhubarb* to the Bark as will procure two Stools a Day, yet not to give above one or two Drams at most.

But the following Powder will answer the Purpose better, and hath cured a great Number of Agues without any other Medicine:

12. R. Cort. Peruv. ʒiv. Flor. Sal. Ammoniac. 3fs. Resin. Jalap. gr. viij. M. f. Pulvis.

This is for two Doses, one of which is to be taken twelve Hours before the Fit, in a large Dish of Tea, and the other two Hours before it. After the Fit, the Patient must drink plentifully of the Infusion of Tea. This single Remedy answers every Intention of Cure, and its Efficacy in all Sorts of Agues, is sufficiently confirmed by Experience.

Sydenham, in *Vernal Intermitents*, gives *Snake-Root*, thus,

13. R. Serpentar. Virgin. subtilissim. pulverisat. gr. xv. Vin. alb. 3iij. M.

This is to be taken two Hours before the Fit, and the Patient is to sweat, well covered in Bed, two or three Hours after it. This may be repeated two or three Times in the same Manner.

Hoffman observes, that obstinate Quartans in Children are not to be cured but by Purging, therefore he directs the following:

14. R. Crem. Tartar. 3j. Calc. Antimon. gr. xij. Diagryd. Sulphurat. gr. vi. M. f. Pulvis pro iij. Dosisibus.

One Dose is to be given six Hours before the Fit; another before the second Fit, and a third before the Third: Then the following Infusion.

15. R. Cort. Peruv. $\mathfrak{z}$ ss. Cort. Eleuther. Sal. Diuret. Sal. Tartar. an $\mathfrak{z}$ j. Aq. Faenicul. $\mathfrak{z}$ vij. M. f. Infusio. Colatur. adde Syr. Caryophyl. $\mathfrak{z}$ ss. Capiat. Coch. j. omni bihorio.

If this fails, it is a Sign it proceeds from an Infarction of the *Viscera*, and an Obstruction of the Glands of the *Abdomen*; to remove which, give the following Saline Liquor often in small Doses.

16. R. Sal. Tart. Nitr. Sal. Ammon. Nit. Vitriolat. an. $\mathfrak{z}$ ij. Extraet. Croc. gr. x. Aq. Fontan. $\mathfrak{f}$ bj. M.

By this Method the Fits will grow milder and shorter, and then the *Bark* given in Clysters two or three Times between the Fits, will be most convenient, as also for other Persons who cannot take the *Bark* any other Way.

17. R. Cort. Peruv. $\mathfrak{z}$ ij. coq. in Aq. Fontan. ad $\mathfrak{f}$ ss. Colatur. turbid. add. Electuar. e Scord. $\mathfrak{z}$ ss. Ol. Anis. gut. j. M. f. Clyster.

If this cannot be retained long enough, add to the *Bark* while it is boiling $\mathfrak{z}$ ss. of *Pomegranate-peel*, and to the *Colature* $\mathfrak{z}$ ij. of simple *Cinnamon-Water*.

Morton recommends the following *Fibrifuge* as very efficacious:

18. R. Flor. Chamæmel. subtilissimè pulv. $\mathfrak{z}$ j. Calc. Antimon. Sal. Abyssynth. an $\mathfrak{z}$ ss. M.

This may be taken every sixth Hour, or oftener, in any convenient Vehicle; or may be made into a *Bolus* with Syr. *Caryophyl.* or into Pills with Mucilage of Gum *Tragacanth*. It is an excellent Medicine.

19. Dr. Berryat, a French Physician, avers, that he has found Dr. Sydenham's *Liquid Laudanum* more infallible in the Cure of Intermittent Fevers, than even the *Bark* itself; a single Dose for the most Part sufficing. He gives it an Hour before the cold Fit is expected, to the Patient in Bed, in a Cup of the Infusion of the lesser *Centaury*. To Infants, five Drops; to Children, ten; to Adults, from twenty to twenty-five, or even thirty Drops, if the Fits have been violent.

Some advise *Pericarpia*; Morton has the following:

20. R. Terebinth. Venet. Pulv. Oliban. an. q. s. C. Spread it upon Leather a little before the Fit.

The next is Boerhaave's.

21. R. Summitat. Rutæ virid. $\mathfrak{z}$ ij. Sem. Sinap. $\mathfrak{z}$ ij. contusa applica ad *Pericarpia*.

The following Pericarpium hath been looked upon as a great Secret, and was procured from a Woman who got a great deal of Money by curing Agues with it.

22. R. *Thuris in Lachry. pulveris.* ʒij, *Groc. gr.* x. *Sal. commun.* ʒss. *Fuligin.* ʒx. *Vitell. Ov. recent.* Num. j. *M. f. Emplastrum, Carpis applicandum, ante accessionem, nec removendum priusquam finierit febris.*

The following *Febrifuge* Plaister for Children, from *Allen*, may be laid to the Pit of the Stomach.

23. R. *Thur. subtiliss. Pulv.* ʒv. *Minil* ʒj. *Ol. Olivar.* q. s. *M. f. Emplastrum.*

To prevent the Return of an *Ague*, the Bark must be repeated every Week or ten Days, for three several Times, with the same Intervals. Likewise Bitters and Chalybeates are very serviceable for the same Purpose, or together, thus,

24. R. *Vin. Chalyb.* ℥ij. *Vin. Amar.* ʒviii. *M.* The Dose is two, three, or four Spoonfuls twice in a Day.

Monro refers *Intermittent Fevers* or *Agues* to the same Tribe of Diseases as the *Remitting Fever*.

We call it, says he, an *Intermittent Fever*, when the *Paroxysms* are distinct, begin with a cold, followed by a hot Fit, and go off with a Sweat; and the Patient is cool and free from the Fever in the Interval between the Fits.

Many, continues he, have been the Causes alledged to produce this Disorder. The great Quantity of Bile that is often thrown up in the Fit, has caused it to be ranked among the bilious Diseases; and the Seasons of the Year in which it is most frequent, and the low moist Situations of the Places where it is endemic, have led to suspect, that an obstructed Perspiration, and a Tendency in the Juices to Putrescence, are the Cause of it.

But whatever Cause we may suppose to give Rise to the first Fit, it is difficult from hence to account for the regular Returns of the Paroxysms and Intermittions. For my own Part, after considering Intermittents, which observed a regular Type in the Course of a Salivation; their being so easily stopped by the Bark without any sensible Evacuation; their being sometimes put away by a Stimulus externally applied, as a Poultice of raw Garlic to the Wrists, or by a Fright, or sudden Plunge into cold Water; their returning after slight Errors in Diet, and sometimes by the Operation of a Purge, or of Bleeding; their attacking sometimes only particular Parts, and many such anomalous Accidents in these Fevers; I must confess that I

am unable to form any Idea, either of their Origin, Seat, or Cause.

In general there is a Prejudice against Bleeding in Agues, after they become regular; but I have always observed, that where Patients are strong and plethoric, and the Fever in the Paroxysms rises high, or the Pulse remains quick in the Intervals, that taking away more or less Blood, and giving antiphlogistic Medicines in the Beginning, eased the Patient, moderated the Fever, and made it safer to give the Bark soon; and I never saw the least Inconvenience in the Practice; but, on the contrary, have observed several intermittent Fevers change into continual ones from the Neglect of this Evacuation; nay, I have seen Cases where the Bark, instead of stopping the Ague, rather increased the Fever, till the Patient was blooded, and had pursued the antiphlogistic Method for some Time; after which the Bark had its proper Effect, and put an End to the Disorder.

As soon as Agues become regular, and the Patient is quite cool, and free from any Fever in the Intervals, give the Bark; which soon puts a Stop to the Paroxysms, without the least bad Consequences: But before giving the Bark take Care to empty the first Passages by Emetics and Purgatives, where there is no Symptom to forbid their Use. Where the Patient is weak, and the Fit so violent, as to make it necessary to stop the Ague, before there is Time to administer Emetics and Purges, add so much Rhubarb to the first Dose of the Bark, as to procure some loose Stools, which will not prevent its stopping the Ague, at the same Time that it answers the Use proposed, of carrying off any putrid Humours that may be lodged in the Intestines.

In *England*, Vernal, Quotidian, and Tertian Agues frequently go off by Bleeding, and taking the saline Draughts and cooling Medicines for some Time, without the Use of the Bark; but in *Germany* very few yielded to this Treatment, and we were obliged to give the Bark before we could put a Stop to them.

Sometimes, when Patients have been reduced low by Agues, the Stomach becomes so squeamish as to reject the Bark in every Shape it can be given: In such Cases, when the Ague cannot be stopped by other Means, it may be administered with great Advantages in Clysters: Children have been cured by Bark Clysters, after the Bark Waistcoats, and other Means used had proved unsuccessful.

When Agues were attended with a Dysentery, and the Purging and Gripes were most severe on the Days of the aguish Paroxysms, I was obliged at first to neglect the Ague, and to treat the

the Disorder entirely as a Flux. If there was much Fever, the Patient strong, and the Pains in the Bowels acute, I ordered Bleeding, and then a gentle Emetic, and some Doses of Rhubarb, or the following:

R. Mann. opt. $\mathfrak{z}$ ss. Ol. Oliv. $\mathfrak{z}$ vi. Vitell. ov. q. s. tere in Mortario, addendo paulatim Sal. cathart. amar. $\mathfrak{z}$ j. solut. in Aq. Font. calid. $\mathfrak{z}$ ij. Sp. Vin. Gall. $\mathfrak{z}$ ij. M. pro Dosi matutino.

I directed a gentle Opiate in the Evening, and other Medicines proper in a Dysentery, till its Violence was abated, before I gave the Bark; yet, in some Cases, where the aguish Paroxysms were very severe, and helped to increase the Purging, and the Patient was in Danger of Sinking, I gave the Bark, though the Flux still continued, and the Method followed, was to give the Bark, mixed with *Diascord.* and Opiates, in the Intervals between the Purges.

By this Treatment both Fluxes and Agues were carried off. But where the mentioned Cautions were neglected, the Bark generally made the Patients worse, and was obliged to be omitted till the Violence of the Purging was over.

In Agues accompanied with a slight Jaundice in the Beginning, for the most Part, the Pulse continues rather quick in the Intervals between the Paroxysms, and the Patients complain of Sickness for the first two or three Days. With such the Bark always disagrees, till the Feverishness between the aguish Paroxysms is gone; and I have found, that the best Way of treating them, is to bleed in the Beginning, if there is much Fever, and then to give a Vomit and a Purge, and to repeat them, if necessary; and where there is no Purging, to give the Saline Draughts, and other cooling Medicines; and to add a few Grains of Rhubarb, or to give so much of the *Pil. Saponac. c.* *Rheo* daily, as to procure one or two loose Stools.

After the Ague has regular Intermiſſions, and the Patient is quite cool, and free from Fever in the Intervals, if the Disorder does not yield to the above Treatment, as indeed it seldom does, then I give the Bark freely; even though the slight icteric Symptoms still remain; and it will put an End to the Ague, and remove the Jaundice at the same Time, without the least Inconvenience to the Patient. In such Cases I have generally added a few Grains of Rhubarb to the first Doses of the Bark; or gave the Bark made up into Pills with Soap, adding occasionally a few Grains of Rhubarb.

Icteric Symptoms with the Ague are often accompanied with bilious Vomitings in the Time of the cold Fit: The Patient is sick,

sick, with a bitter Taste in the Mouth, before the Approach of the Paroxysm; yet, though they take Emetics, which operate freely at this Time, they seldom bring up Bile; the Sickness and bitter Taste, however, continue till the cold Fit comes on, and then then they vomit Bile in large Quantities. In such Cases, after Emetics and Purges, the Ague being brought to regular Paroxysms, with free Intermissions, the Bark administered as before, removes the Ague and icteric Symptoms, without the least bad Consequences.

Many Practitioners of great Repute have been prejudiced against the Bark; alledging, that the free Use of this Medicine often lays the Foundation of Obstructions in the abdominal Viscera, especially when it has been given where there was an icteritious Colour in the Eyes and Countenance; and that in such Cases we ought not to give the Bark till these icteric Symptoms are gone. At first I was very cautious of giving it under such Circumstances; till meeting with some Cases where the Paroxysms were severe, and became more frequent, while the Patient was so low as to be in Danger of sinking under the Disorder, I gave the Bark freely, as the only Remedy capable of preserving Life; which not only stopped the Ague, but carried off the icteritious Smptoms, and restored the Patient to perfect Health. *Cleghorn* says, "Where there is an icteritious Colour of the Eyes, we are told that the Cortex should not be administered; though, in my Opinion, it is far the most dangerous Part to delay it, after the first Appearance of that Symptom."

I have, ever since, given it freely, in the Manner above-mentioned, with great Success, and never saw any Mischief from using it: Indeed sometimes, where it was given rather too soon, it did not set easy on the Stomach, and made the Patients hot and restless; but by laying it aside, these Effects immediately ceased; and generally, after a little Time, the Paroxysms became milder and more distinct, when the Bark was again administered, agreed with the Stomach, and put an End to the Disorder: And I am now convinced from Experience, that the Cases in which the Bark has done Mischief, or given Rise to Obstructions of the abdominal Viscera, are but very rare; and that these Mischiefs mostly arise from the Obstinacy of the Disorder, and not from the Use of this Drug; for I have oftener observed Obstructions where little or no Bark had been used, than where it was given freely.

What, probably, has given Rise to the Belief of the Bark's doing so much Mischief, is, that in *Holland*, and other low fenny Countries, where Agues are endemic, they are oftentimes extremely

tremely obstinate, and yield hardly to any Remedies; and if they are stopped by the Bark, they often return soon after, and, by their long Continuance, occasion Obstructions of the abdominal Viscera, which have been attributed to the Use of this Specific.

In some few Cases, a Purging has accompanied these icteric Symptoms, which was treated much in the same Manner as when the Ague is accompanied with a Flux; I gave Emetics and Purgatives, and the *Mindereri* Draughts, with Mithridate, throughout the Day, and Opiates at Night, if the Purging was violent: If it continued, accompanied with regular aguish Fits, the Bark, with Astringents, generally removed both.

Whenever the Bark had no Effect, and its Use persisted in seeming rather to exasperate the Paroxysms, and to do hurt, and no Remedy I tried had a better Effect; I gave the following Medicines to divers Patients; the saline Draughts and cooling Medicines; Infusions of Camomile Flowers, and of other Bitters; Dr. *Morton's* Powders of Camomile Flowers, Salt of Wormwood, Myrrh and Alum; Alum and Nutmeg; large Doses of Sal Ammoniac; large Quantities of Spirits of Hartshorn; the Antimonial Drops and Powders; to some I gave Emetics, both in the Intervals, and immediately before the Fits; in some I tried to promote Sweats before the Approach of the Fits, by making them drink freely of warm Liquors while they kept in Bed, and took diaphoretic Medicines; and to others I applied Blisters.—But all did not put a Stop to some of these Agues. Some became Chacectic, and died of Dropsies or Diarrhoeas; some, from Obstructions of the Liver, Spleen, &c. fell into Jaundices and Dropsies, which carried them off. The opened Bodies exhibited Indurations of those Viscera, Suppurations of the Liver, and what they call the Ague-Cake, which is an extravagant Enlargement of the Spleen. Others fell into Consumptions, and one died in the cold Fit*.

Patients will sometimes be afflicted with periodical Head-achs, returning, in most, every Day, but in some only every second. Those Head-achs usually begin in the Forenoon, and are very violent while they last, confining them to their Beds for some Hours: In the Intervals they are quite cool, and free from Fever. Sometimes, though not always, the Urine deposits a

* The cold Fit is the most dangerous Time of the Paroxysm, and the greatest Part of those who die of Agues die at this Time.—*Van Swieten* says, he has seen the Trembling and Shaking so great in the Time of the cold Fit of Quartans, that the Teeth have dropped out of the Head.

little Settlement as the Fit goes off. Commonly the Pain is all over the Head, but most severe in the Forehead; though sometimes it is confined to one Side only.

These Head-achs I treat entirely as Agues of the same Type. If the Patient be strong, Blood is taken away; then an Emetic and Purge prescribed; and lastly, the Bark liberally, which generally puts an End to the Complaint, without any bad Consequences attending.

XX

Of the CATARRHAL FEVER, or the Continual Quotidian
of the Ancients.

IT generally begins in the Evening with a *Shivering* and a *Coldness* of the extreme Parts, especially of the Feet, and Soles of the Feet; a Costiveness, a frequent Desire of making Water, but the Urine is small in Quantity; a Weakness of the Head, an universal *Languor* of the whole Body; a false Appetite, Thirst, Difficulty of Swallowing, a *Stimulus* in the *Larynx*, a Heat in the Nostrils and *Fauces*, attended with Sneezing; a Weight in the Breast. Towards Night Heat, and a quicker, fuller Pulse, with a Defluxion of Rheum, a Heat in the *Fauces*, unquiet Sleep, a Sweating in the Morning, a Heaviness and Dulness of the whole Body, and a Loss of Appetite.

The immediate Cause of this Disorder is a sharp, acrid *Serum* or *Lympha*, subsisting in the glandulous Tunics and irritating them, with Pain, Tumor, and Redness. This happens in the whole Region of the Nostrils, Palate, and *Fauces*; as also in the *Aspera Arteria* with the bronchial Branches: And farther in the *Oesophagus*, Stomach, and Intestines. Hence a Hoarseness, a Cough, a Hawking up of viscid Matter, a Sneezing, a Defluxion of the Lungs. Likewise a *Nausea*, sometimes a Vomiting; a Heat about the *Præcordia*; a Gripping of the Guts, followed with a salutary Flux.

It more frequently attacks Women and Children than Men, and those that indulge themselves in strong Liquors. It sometimes happens from the drying up of a scald Head and other Eruptions. Sometimes it is epidemical, and proceeds from a subtle caustic Matter in the Air. When it is attended with a sudden Loss of Strength it is of a malignant Nature.

This Disease is most frequent in the Spring and Autumn, in sudden Changes of the Weather from hot to cold, from dry

to moist, and *vice versa*; as also from Change of Air, if of different Qualities; from being exposed to the cold Air of the Night, and from throwing off Winter-Garments too soon. Sometimes it is *epidemical* and *contagious*.

This Disease is not dangerous in itself, if rightly managed; and terminates in *seven* or *fourteen* Days at farthest; for the Lassitude of the Body then disappears: And the other Complaints, especially the *Head-ach* and *Hemicrania*, are appeased, when the *Catarrh* appears, and there is a plentiful Discharge from the Nostrils.

It often goes off, in some, in the Beginning, with an increased Perspiration, or by Sweat; in others, after a few Days, by hawking up a large Quantity of viscid Matter, or a plentiful Discharge of a *mucous Serum* by the Nose; in others, by a Looseness, when the Urine at the same Time, which before was thin and little, becomes copious and heavy, with twice the Quantity of Sediment as in a natural State.

The Intentions of Cure are three, 1. To sheath the Acrimony of the *Lympha*. 2. To increase Perspiration. 3. To promote the Expectoration of the viscid *Mucus*.

The *saline Sharpness* of the *Lympha* may be taken off by the *absorbent* and *diaphoretic Powders*; humecting and oleous Remedies, such as Oil of Sweet Almonds, *Sperma-ceti*, Milk, Cream, Almond-Emulsions, with the Addition of white Poppy-Seeds, Barley-Broth, Water-Gruel, Chicken-Broth, with the Yolk of an Egg. As also Liquorice-Juice, Liquorice-Tea, dried Figs and Raisins. If the Acrimony is very subtil and corroding, gentle Anodynes should take place, such as *Saffron*, *Diacodium*, and *Storax Pills*.

To promote a *Diaphoresis*,

1. R. Pulv. Contrayerv. com. ℥j. Serpent. Virgin. Crac. an. gr. v. M. f. Pulvis. This may be repeated in four or six Hours Time if necessary.

To appease the Cough,

2. R. Ol. Oliv. ʒiiss. Aqua Fontan. ʒvj. Spir. C. C. gut. lx. Syr. Pectoral. ʒj. M. Cap. Cochl. iv. quarta, quaque Horâ. At Night give gr. vi. of the *Storax Pills*, unless the Head is weak, for then they must be avoided.

To promote Perspiration, order Tea, with Leaves of *Veronica*, [Male Speedwell,] Hyssop, Liquorice-Root, Elder-Flowers, wild Poppies, and Fennel-Seeds. As also the more fixed diaphoretic Powders, with antispasmodic Waters; but especially bodily Motion and Exercise.

To promote the Excretion of the thick, viscid Mucus, Figs and Raisins are proper, with Brandy burnt, and reduced almost into a Syrup. Likewise a pectoral Elixir, made of Gum Ammoniac, Myrrh, Liquorice-Root, Elecampane-Root, Saffron, Benjamin, and Oil of Anniseed, whose Virtue may be heightened by the vinous Spirit of Sal Ammoniac or Tincture of Tartar. The stagnating Mucus of the Nose may be dissolved, by often holding to the Nose the dry volatile Sal Ammoniac, mixed with a few Drops of genuine Oil of Marjoram.

The Regimen should be temperate, and cooling Things as well as Acids should be avoided; Opiates are not convenient, when the Head is weak and heavy, the Body costive, and the Age far advanced.

The Aliment should be sparing, the Drink warm and wholesome; the best is a Decoction of Pearl-Barley and Shavings of Harts-horn; as also of Water-Gruel. Wine is not proper till the Decline of the Disease.

If the Heat is intense, and the Constitution bilious, a few Grains of Nitre may be added to the diaphoretic Powders, and the Emulsions may be taken more freely.

If the Body is costive, besides Water-Gruel, Manna, Prunes, and Raisins, nothing is better than an emollient Clyster. Or the Patient may take at Night, going to Bed, half a Dram of the Aromatic Pills, with four Grains of Storax Pills, which will open the Body, and appease the Cough.

In the Decline of the Disease, when the Cough is too moist, the Defluxion great and obstinate, it will be proper to take a large Dose of Manna to two or three Ounces in Fennel-Water, to carry the Humours downward. To which Purpose also, a Scruple or half a Dram of Rufus's Pills may be given. Cathartics are hurtful in the Beginning.

When the Cough is very violent, it must be appeased with a Mixture of Oil of Sweet Almonds fresh drawn, and French Syrup of Capillaire, or the following Electuary:

3. R. Ol. Amygd. dul. ℥iij. Sperm. Cet. ʒj. Sacch. Cand. alb. Syr. Violar. an ʒj. Croc. ʒj. Ol. Anif. Macis, Rad. Saffras an. gut. vj. M. f. Electarium, de quo aliquid subinde deglutendum.

When Women labour under a Suppression of the Menses, the Body must be kept open with Clysters; Bezoardic Powders must be given, and a Grain of Saffron added to each Dose, or a few Grains of Flowers of Sulphur, but avoid sweet Things and Expectorants.

When

When the *Fever* is vanquished, and the Lungs continue in a lax State, which is known from too large a Spitting, to the *Bezoardic Powders* must be added a few Grains of *Cortex Eleutheriæ*.

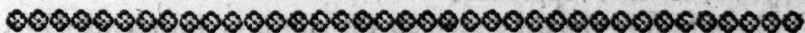
Or give some Drops of the *Traumatic*, or general Balsam, three or four Times a Day.

When there is a *Plethora*, Bleeding will prevent a *Catarrh*, but when a *Fever* is present, it renders the Cure more difficult.

In a violent, obstinate Cough, sweet Pectorals, and in-cras-fating Remedies too plentifully given, bring on a *Cachexy*, or *Phthisis*, by spoiling the Appetite, and hurting the Tone of the Lungs. HOFFMAN.

What we commonly call CATCHING COLD, may be cured by lying much in Bed; by drinking plentifully of warm *Sack-Whey*, with a few Drops of Spirits of *Harts-horn*, *Possit Drink*, *Water-Gruel*, or any other warm small Liquor; a Scruple of the *Pulv. à Chelis Cancr. comp.* Morning and Night; living-upon *Spoon-meats*, *Pudding*, and *Chicken*, and drinking every thing warm: In a word, treat it at first as a small *Fever*, with gentle Diaphoretics; and afterwards, if any *Cough* or *Spitting* should remain, by softening the Breast with a little *Sugar-Candy* and Oil of *Sweet-Almonds*, or a Solution of *Gum Ammoniac* in an Ounce of *Barley-Water* to make the Expectoration easy, and afterwards going into the Air well-clothed.

This is a much more easy, natural, and effectual Method than the Practice by *Balsams*, *Linētus's*, *Pectorals*, and the like Trumpery in common Use, which serve only to spoil the Stomach, oppress the Spirits, and hurt the Constitution. CHEYNE.



Of the SEMITERTIAN FEVER.

THIS is an epidemic *Fever*, compounded of an *intermitting Tertian* and a *continual Quotidian*. It is called by the Greeks *μυστηριασμός*.

• It generally makes its Onset before Noon, with Coldness, Shaking, and a contracted Pulse; to which succeeds a frequent Pulse, with Heat which continues some Hours, till a warm Sweat appears, without a complete Intermision. The Heat, after a slight Chilness, increases towards Night, with a quick Pulse, which is more moderate the next Day, without Thirst, till the Evening, when a slight Shivering comes on, and the Symptoms return. On the third Day the Shaking Fit appears again with more intense Heat, and proceeds in the same Track

as before ; so that the Fever is never quite off, but has an Exacerbation in the Evening : However, the Shaking Fit is most conspicuous every third Day in the Morning.

Besides the foregoing Symptoms, the Strength fails, the Appetite is languid, Sleep is wanting, the Urine is thin and crude ; but after the Fit on the third Day it is thick and coloured, and a small Quantity of crude Matter is brought up with Coughing. It is sometimes attended with a Pain in the Back and the *Abdomen*, together with a Swelling in the latter. Some, at the Access of the Fit of the *Tertian*, are affected with a *Nausea* and *Cardialgia*. Some vomit, others faint, and others again are *delirious*.

Some have called it a *continual Tertian*, though improperly, for that grows worse on the third Day, but not in the Evening of other Days ; it likewise grows more moderate after the third Day, and turns to a true *intermitting Tertian*. Nor is it to be confounded with the double *Tertian* ; for though it comes on every Day, the Times of the Fits correspond with each other alternately, and the Fever perfectly intermits.

This Fever is generated by all Things that render the Humours thick and impure, especially those that fill the *Primæ Viæ*, and the Vessels of the Mesentery, with Impurities. Those are most liable to it who live upon sweet, acid, and fermentable Aliment, that live an idle sedentary Life, that drink less than they ought, or love sweet Wines ; as also those that give way to Sadness and Melancholy. Those are easily affected with this Disease who are costive after Recovery from a Disease, or often use drastic Purges, or that have the bleeding Piles, or Menses suppressed.

It generally terminates either on the ninth or thirteenth Day, in Health, or another Disease, or Death.

When it continues longer, it is attended with an Inflammation that turns to an Abscess, and the Disease changes to an *hectic* or *slow Fever*, or to a Dropsy, or, which is more rare, into a simple or double Intermittent.

It is a good Sign when a Sweat breaks out at the Decline of the *Paroxysm*, and when, on the seventh Day, being critical, or, after it, the Belly is disturbed, and is followed with a Flux of bilious, pituitous, or bloody Matter, for it foretells the Solution of the Disease ; as also when the Pains in the Belly are very sharp, and grow worse at certain Hours, being followed with a *sanious* and *purulent Diarrhœa*, or when Plenty of black Blood comes away.

It is a bad Sign, when nothing of this happens ; but, on the other hand, a Heat about the *Præcordia*, a Tension and Pain
in

in the whole Region of the Stomach, a Vomiting and Hiccup, Inquietude, Tossing and Trembling of the Hands, are very ominous, and show that the Inflammation has reached the Stomach.

Those that die of this Disease, depart at the Accession of the Fit, which preserves the Type of a *Tertian*, after the Inflammation has spread, and is converted into Putrefaction.

The Cure is to be performed, 1. By speedily discussing the *Inflammatory Stasis* in the Coats of the Intestines and Mesentery, and preventing it from spreading farther; 2. By correcting and gently evacuating the Matter of the intermitting Fever, observing at the same Time the critical Motions.

The first End may be obtained by diaphoretic Powders, mixt with a little *Nitre*, in small Doses, but taken often.

1. R. *Cerufs. Antim. Matris Perlar. Chel. Cancr. ppt. an. ʒj. Oculor. Cancr. Nitr. depurat. an. ʒss. Capiat gr. xv. tertia quaque Hora ex Haust. Decoct. sequent.*
2. R. *Rad. Scorzon. ʒij. Rasur. C. C. Passular. minor. an. ʒj. Rad. Cichor. ʒss. Coque in ℥viij. Aq. per Horæ dimidium.*

To cleanse the first Passages, and to carry off the morbid Matter, use a Solution of Manna with Cream of Tartar, Raisins, and a little *Sal. Polychrest.* Or,

3. R. *Mann. elect. ʒiss. Rhubarb. Crem. Tart. an. ʒj. Sol. Polychrest. ʒij. Coque et solve leni Calore in Aq. Fontan. ʒiv. Colatur. add. Ol. Junip. gut. iij. M. F. Potio.*

Things of this Kind cleanse the intestinal Canal, without raising a Commotion in the Blood, without stimulating the nervous Parts, and without sinking the Spirits.

Purges in the Beginning are unsafe, because the morbid Matter is not prepared, but if the Body is costive it may be opened with an emollient and saponaceous *Clyster*.

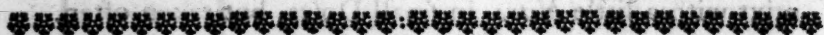
4. R. *Decoct. Commun. ʒviij. Sapon. moll. ʒss. M. f. Enema.*

All deterfivè Salts are improper in this Disease, except *sibi-ated Nitre* and *Sal. Polychrest.* for these have an aperient, diuretic, and laxative Virtue, and may be given to gr. xv. in a proper Vehicle. When this Fever is on the Decline, and Nature seems intent in carrying off the Disease by Stool, then the above Laxative will be proper.

Bleeding will be proper in the very Beginning of the Disease, if the Patient is plethoric, the Heat urgent, the Strength not much impaired, and when some critical *Hæmorrhage* is suppressed. All heating Medicines are to be avoided, as well as fixed

astringent earthy testaceous Powders, and also the Bark, unless there is a perfect Intermission. For this last, as *Baglivi* observes, has brought on fatal Inflammations, or *slow hectic Fevers*.

When there is a violent Pain in the Belly, or a Looseness, no Sedatives must be used; but Diaphoretics and spirituous strengthening Liniments must be applied externally. The above Decoction may serve for common Drink. The Decoction of *Camomile Flowers* and the Tops of *Yarrow* are likewise very serviceable in this Disease, as they appease *hysterick Spasms*, and have a singular tonic antefebriile Virtue. *HOFFMAN*.



Of the NERVOUS FEVER.

IN a *Nervous Fever* the Patients at first are subject to *slight transient Chillinesses* often in a Day, with uncertain Flushings of Heat; they have a Listlessness, Lassitude, and Weariness; they are apt to sigh and complain of a Heaviness, Dejection, and Anxiety, with a Load, Pain, or Giddiness of the Head, with an Inclination to yawn and doze, want Appetite, and disrelish every thing; they have a Dryness of the Lips and Tongue without any considerable Thirst; they have frequent *Nauseas* with reaching to vomit, but little is brought up; the Breathing is difficult by Intervals, and especially towards Night there is an Exacerbation of the Symptoms, with a low, quick, unequal Pulse; the Urine is pale, and made often and suddenly; a *Torpor*, or obtuse Pain and Coldness often affect the hind Part of the Head, or a heavy Pain is felt along the coronary Suture. These commonly precede some Degree of a *Delirium*.

The Countenance is heavy, pale, and dejected; sometimes they are quite wakeful; and when they fall asleep they are so insensible of it, that they disown it. They may continue thus for five or six Days.

The *Pulse* is very remarkable in this Disease, and requires the most diligent Attention, for it is generally *low, quick, and unequal*; the Inequality consists in this, that a few Pulsations shall be more swift, frequent and large, sometimes fluttering, and then presently it returns to be low and quick.

Gilchrist makes this State previous to the Fever, and says, that for a Fortnight or three Weeks before they are laid down, they shall be low-spirited, inappetent, loaded, sleep ill, sigh frequently,

frequently, groan involuntarily, and feel inexpressible Disorder, accompanied with Fear, Concern, and Dejection, and perhaps slight Alienations of Mind.

The Urine has generally no Sediment, and, when it has, it is like Bran; it is sometimes of a Whey Colour, or like dead small Beer. The Dryness of the Tongue seldom appears at the Beginning, though it is then sometimes covered with a thin, whitish *Mucus*; but at the State or Close of the Disease, it often appears very dry, red, and chaped.

About the seventh or eighth Day, the Giddiness, Pain, or Heaviness of the Head become much greater, with a constant Noise in it, or *Tinnitus Aurium*, which is frequently the Fore-runner of a *Delirium*.

The Load on the *Præcordia*, the Anxiety and Faintness, grow much more urgent, and the Patient often falls into an actual *Deliquium*, especially if he attempts to sit up. Now cold Sweats appear suddenly on the Forehead and Back of the Hands, while the Cheeks and Palms glow with Heat, and as suddenly go off. If the Urine grows more pale and limpid, a *Delirium* is certainly at hand, with universal Tremors and *Subsultus Tendinum*; the *Delirium* is generally little more than a Confusion of Thought and Action, a continual muttering and faltering of Speech. Sometimes they awake in a Hurry and Confusion, and presently recollect themselves, but forthwith fall into a muttering, then doze again.

At the *State*, the Tongue grows often dry, with a yellow *List* on each Side, and when the Patient attempts to put it out, it trembles greatly. If at this Time a copious *Spitting* comes on, it is a very good Sign. When there is a Difficulty of Swallowing or continual Gulping, it is a dangerous Symptom, especially with a Hiccup.

On the ninth, tenth, or twelfth Day, the Patient often falls into profuse Sweats, which at the Extremities are commonly cold and clammy, and frequently there are thin Stools, which are generally both colliquative and very weakening. A warm Moisture on the Skin is reckoned salutary; and a gentle *Diarrhœa* often carries off the *Delirium* and Sleepiness.

When the *Extremities* grow cold, the Nails livid, the Pulse exceeding weak and quick, insomuch that it rather trembles and flutters than beats; or creeps surprizingly slow, with frequent Intermissions, then Nature sinks apace, and the Patient becomes quite insensible and stupid; the *Delirium* turns to a profound *Coma*, which soon ends in Death; or the Stools, Urine and Tears run off involuntarily, as a Prelude to a speedy Dissolution; or there are vast Tremblings and Twitch-

ings of the Nerves and Tendons, which terminate in a general Convulsion, and this in a Cessation of all Motion. One or other of these Ways closes the Scene, after the Patient has languished fourteen, eighteen, or twenty Days, nay, sometimes much longer.

All Persons grow deaf and stupid towards the End of the Disease, and if the Deafness ends in an Imposthume of the Ear, or when a *Parotis* suppurates, or a large pustular Eruption breaks out about the Lips and Nose, they are good Symptoms.

Gilchrist says, that Persons who are attacked with this Disease, have probably exposed themselves indiscreetly to the Sun, or have been fatigued in it, or have eaten largely of Fruit, or have drank bad Wine or Spirits, which bring on a terrible Parchedness or Stricture, or they have been long under continual Anxiety, Care, Fear, Discouragement, or other enervating Passions, together with Irregularities of Diet and Manner of Living, which cause a bad State of the Fluids, as well as a depressed State of Mind. To which *Manningham* adds, Watchings, intense Thought and Study, taking Cold, undue and profuse Evacuations, or whatever vitiates or impoverishes the Blood.

Huxham observes, that it commonly attacks Persons of weak Nerves, a lax Habit of Body, poor and thin Blood, who have used vapid, impure Drinks, or have been long confined in damp, foul Air; that have broken the Vigour of their Constitutions by Salivations, frequent Purgings, immoderate Venery, &c. Whence he concludes, that the Disease arises from a too relaxed State of the Solids, a poor, weak Blood, with a *Lentor* and *Vapidity* of the lymphatic and nervous Juices.

Gilchrist formerly thought, from the Diseases he had then observed, that the Cause consisted in a *Lentor* chiefly; but he is now of Opinion they have plain Signs of *Acrimony*; and that *Acrimony* is a Cause sufficient to bring on a *Fever of this Kind*, by giving an universal *Stimulus*. A *general Constriction*, says he, from this Cause, will, by forcing the Blood inwards, occasion Coldness of the Extremities, Lowness, Faintness, Oppression, and an inward Struggle, the special Characteristics of the Fever, which it has in common with other Species, but in a more remarkable Degree. Nay, this Constriction and *Acrimony* may bring on a particular Stagnation or Obstruction, which by their Weight and Erosion may cause a Bursting of the Vessels; and hence will arise Hæmorrhages and bloody Excretions, which may be partly critical and partly symptomatical. Besides a general Constriction of those Parts which are endowed with a greater contractile Power, will necessarily throw the Fluids on those

those that are weakest, such as the smaller Order of Vessels, many of the Organs and *Viscera*, but especially the Brain, and the whole System of the Membranes and Glands.

The Cure is to be performed with gentle volatile Medicines of the cordial and diaphoretic Kind, in order to promote Perspiration; by Application of Blisters, and by a proper Regimen and Method of Diet. It will bear no other Evacuation than moderate cordial Diaphoretics, and Blisters, unless a gentle Emetic should be indicated in the Beginning, or a small Dose of Rhubarb when it has continued long. Bleeding is very prejudicial, and much Sweating hurtful. In giving Diaphoretics we should always have regard to the Urine; for if that from being pale, gradually heightens to an amber Colour, we are right in our Dose, especially if, when in Bed, a gentle Dew or Moisture comes on without a Restlessness; and we must always remember, that over-Sweating will raise the Fever and endanger the Patient, who must ever be kept still and quiet.

If the Patient is inclinable to *Deliquia*, or Faintings, on every little Motion, or complains of greater Lassitude or Faintness than ordinary, it will be necessary that he lie in Bed, and have Blisters applied; if delirious, the Blisters must be laid on high on the Nape of the Neck.

If Rest is wanted, give a few Grains of the *Flores Martiales*, for Opiates only increase the Disorder; and if a Looseness is feared, the *Flores Martiales* may be more freely given. MAN-NINGHAM.

A *Vomit* ruffles Nature much less than a common Purge, and is necessary where a *Nausea*, Load, and Sickness of the Stomach are urgent. If the Body is costive, Clysters of Milk, Sugar, and Salt may be injected with Safety and Advantage every second or third Day. The *temperate Cordial* and diaphoretic Medicines are certainly most proper in these Fevers; a supporting, well regulated, diluting Diet, is necessary, and will go a great Way in the Cure, especially if assisted by well-timed Blisters, and keeping the Patient quiet in Body and Mind. Opiates are commonly very pernicious; mild Diaphoretics, as *Puku*, *Contrayerv*, *Compos*. with a little *Castor* and *Saffron*, and small Quantities of *Theriac*, *Androm*. or *Elixir Paregoricum*, will have much better Effects. Where the Confusion or Dejection of Spirits are considerable, *Galbanum* or *Sylphium*, with a little *Camphira*, should be added, and Blisters should be forthwith applied to the Neck, *Occiput*, and behind the Ears: During all this, a free Use of thin Wine-whey, some pleasant Ptisan, with a little soft Wine must be indulged.

A little Chicken-broth also is of Service, both as Food and Physic, especially towards the Decline of the Disorder; and for the same Reason, thin Jellies of Harts-horn, Sago, and Panada, are useful, adding a little Wine to them, with Juice of *Seville* Orange or Lemon. HUXHAM.

I formerly recommended Wine in Fevers, which, by a congenial Heat, or cherishing Warmth, friendly to Nature, kindly relaxed the tense Fibres and Vessels, taking off the febrile Stricture, the chief Symptom of a Fever and essential to it. The Heat is sufficient to subdue a *Lentor*, and so remove all slimy, mucous, sily Indispositions of the Fluids, where there is not too much preternatural Heat already, or Tendency to Inflammation. In Fevers wherein the Blood is supposed poor and inactive, filled with Acrimony, and too much colliquated, it deserves the Character of a high natural Cordial and Alexipharmic, and must be placed in the Rank of safe and effectual Remedies. I have given it in high Ravings, Head-ach, Tossing, and Watching, and where the Eyes were much inflamed, with wonderful Success; for it composed the Patient, and procured Sleep where Opiates failed, or when I durst not give them. I have allowed sometimes a Bottle of Wine in a Day. GILCHRIST.

It was said above that *profuse Sweats* should never be encouraged; yet, the Patient is never so easy as while he is in a gentle, easy Sweat, for it soon removes the Exacerbation of the Heat, Hurry, &c. when there are irregular, putrid Heats and Flushes, with great Anxiety, Restlessness, Delirium, Difficulty of Breathing, and a vast Load and Oppression on the *Præcordia*, so as to resemble a peripneumonic Case; yet beware of Bleeding, for the small, low, quick and unequal Pulse utterly forbids it, as well as pale, watery, limpid Urine. The Breathing in this Case is not quick, but a thick, laborious, sighing or sobbing Respiration, many times without a Cough, so that this is really some Spasm of the Vitals.

Here then the nervous, cordial Medicines are indicated, and Blisters to the Thighs, Legs and Arms.

1. R. Pulv. Contrayerv. comp. gr. xv. Croc. Ang. gr. iij. Confect. Cardiac. ℥j. Syr. Croc. q. s. M. f. Bolus. Likewise,
2. R. Sal. C. C. ℥ss. Succ. Limon. z iij. Aq. Alexit. simp. ℥iss. M. peracta Effervescencia adde Spir. Lavend. Comp. Syr. Croc. an. ziss. M. f. Haustus.

When great Tremors, and *Subsultus Tendinum* come on, instead of the *Pulvis Contrayerva*, I use ℥ss. of Musk, with great Success.

I order

I order this *Bolus* and *Haustus* every fifth, sixth, or eighth Hour, and a *temperate cordial Julep*, and *Spir. Volat. Aromat.* or *faetid.* may be given now and then out of thin Wine or Cyder-Whey; or, which in many Cases is better, out of thin Mustard-Whey.

But this Difficulty of Breathing, Anxiety, and Oppression of the *Præcordia*, often precede a miliary Eruption on the seventh, ninth, or eleventh Day, which should be promoted by soft, easy Cordials, proper Diluents, sometimes with a little *Theriaca Androm.* or *Elixir Asthmatic.* as tending to calm the Uneasiness, and to promote a *Diaphoresis*.

In profuse, colliquative Sweats, I have given a little generous red Wine, perhaps a little diluted, which moderates the Sweat, supports the Patient, and keeps up, if any, the miliary *Papillæ*.

Towards the Decline of the Fever, when the Sweats are copious and weakening, I give small Doses of the Tincture of the *Bark*, with Saffron and Snake-root, interposing now and then a Dose of Rhubarb, to carry off the putrid *Colluvies*, which makes the Intermissions or Remissions more distinct and manifest.

3. R. *Cort. Peruv. pulv.* ℥ij. *Flaved. Aurant. Hispan.* ℥iss. *Rad. Serpent. Virgin.* ℥iij. *Croc. Anglic.* ℥iv. *Coccinel.* ℥ij. *Spir. Vin. Gallic.* ℥xx. F. *Infusio clausa per Dies aliquot, deinde coletur.* The Dose is from ʒj. to ℥ss. every fourth, sixth, or eighth Hour.

When there is an evident Intermision, I give Preparations of the Bark out of Draughts made with *Sal. Absinth.* and *Succ. Limon.* This Method will shorten these Fevers, even with miliary Eruptions.

Under any Evacuations, diluting Nourishment is absolutely necessary to keep up the Spirits, to repair the Loss of the Juices, and mend the remaining; and the Patient should be frequently prompted to take them. When any Discharges are very immoderate, they may be prudently restrained, but not repelled. Thus, in a profuse Diarrhoea, a little *Theriac. Androm.* will moderate the Flux by promoting the cuticular Discharge. Hux.

Gilchrist affirms, that to all the warming, attenuating, stimulating, or antispasmodic Remedies, *Cinnabar* should be added, and that in no small Quantity. And he highly recommends the Use of the Bark in the Decline of long, nervous Fevers, or after a Remission. And when there is Occasion for Blistering, he thinks the Head most preferable, whenever it is much affected,

affected, though he does not disapprove the laying Blisters on the Back and Limbs. On the sixth or seventh Day, when the Head began to be affected with Sleepiness, or Raving, he observed, a Vomit would stave them off for some Days, or render them more moderate; that before that Time it was too soon, and after, too late. When the low, depressing, nervous Symptoms are stronger, the higher Methods of stimulating are more necessary and easily borne; in Raving, with a low, intermitting Pulse, *Subsultus*, Fainting, and Coldness of the Extremities, besides frequent Blistering, we must give *Campfire* and *Castor*; and if the Urine is little, *Sal Succini* in small Doses, given frequently, answers best, and the Effect is more constant. The Uses of *Serpentar. Virgin. Valerian. Asa Foetida. Myrrh*, and terreous Absorbents, are well enough known, and the Forms in which they are given. Refreshing Juleps should not be taken by Spoonfuls, but by Draughts. Acrid Cataplasms may be laid to the Feet till they begin to stimulate or raise a just Degree of Heat: Then apply Poultices of Bread, Milk, and Vinegar, especially during the Exacerbation, to allay the Heat and Struggle; renewing them alternately in order to keep up a gentle Heat and Stimulus. A quick, hard, and more contracted Pulse, with smart Heat, Tossing, and Anxiety, shew it is over-done.

The following Things, as Occasion shall offer, may be taken in some convenient Vehicle, such as Sack-whey, Barley-water, soft Wine, or appropriate Julep.

4. R. Pulv. e Chel. Canc. comp. gr. xv. Croc. Castor. an. gr. iij.
M. f. Pulvis. Or,

5. R. Pulv. Contrayerv. comp. gr. x. Castor. gr. v. Croc. gr. iij.
M. f. Pulvis.

If a Bolus is more agreeable,

6. R. Pulv. Contrayerv. gr. xv. Croc. gr. iij. Confect. Alkerm.
q. s. M. f. Bolus.

If it imitates a Pleurisy,

7. R. Sperm. Cet. ʒj. Pulv. Contrayerv. gr. xv. Castor. gr. iij.
M. f. Pulvis.

Riverius's saline Draught is also useful in this Disease, taken every eight Hours, as well as *Huxham's* abovementioned.

8. R. Sal. Absinth. ʒss. Succ. Limon. ʒss. Aq. Fontan. ʒj. M.
f. Haustus.

In the State of the Disease the Remedies may be more active, as,

9. R. Pulv. Contrayerv. gr. xv. Serpentar. Virgin. gr. v. Croc.
Castor. an. gr. iij. M. f. Pulvis.

If

If the Urine is small in Quantity, gr. v. *Sal. Succin.* may be added. Or,

10. R. *Rad. Valerian. Sylvest.* ʒj. *Castor. Croc. an.* gr. iij. *Aſc. Fœtid.* gr. ij. M. f. Pulvis.

When the Case is almost desperate,

11. R. *Mofch.* gr. xv. *Sal. Corn. C.* gr. viij. *Camph.* gr. iv. M. f. Pulvis.

If the Pulse is carefully attended to, this Fever may be always known, though it is apt to put on various Shapes, and will yield to the mild diaphoretic Remedies and moderate Cordials. Thus, Difficulty of Breathing, Nauseas, and Inclination to vomit, Diarrhœas, with high-coloured, turbid Urine, regular Exacerbations like Intermittents, Continual Fevers, Atrophy and Hectic Fevers, Fits of the Cholic, Suppression of the Menſes, &c. are only casual Symptoms of this. Even Hæmorrhages must be only treated with Substringents. And Madness itself, the Consequence of this Disease, may be cured by the Extract of the Bark, and a few Grains of the *Flores Martiales*. Child-bed Women who have this Fever, should never leave their Beds too soon, for they often have died suddenly for want of observing this Rule. The Stoppage of the *Lochia* may be removed with *Sperm. Cet. Pulv. Contrayerv.* and *Croc.* Blisters and copious Bleedings in this Case are fatal. MANNINGHAM.

Of Epidemic, Catarrhal, Eruptive FEVERS.

THESE Fevers are continual but not violent: They are attended with a Prostration of Strength, Watching, Loss of Appetite, and are sometimes joined with an Eruption of Spots on the Skin, arising from the Plenty and intestine Dissolution of an excrementitious Serum, not without Contagion and Danger of Life.

These Fevers were called by the Ancients, *continual, quotidian, serous Fevers*; and by some of the Moderns, *malignant catarrhal Fevers*, because they are mild at first, and attended with a Running at the Nose, a Catarrh, an Inſarction of the Breast, and a Cough on the first Days, with Exacerbations at Night.

At the Beginning of this Disease the Face of the Patient has a morbid Aspect, and he is out of Order three or four Days before he takes to his Bed. He complains of a spontaneous Weariness, a grievous Pain of his Body and Joints, as if his Bones were bruised and broken; his Strength is languid, his Appetite

is lost, he has a slight fainting Fit, a cardialgic Nausea, a Pain in the Head, an unquiet Sleep, with Costiveness. In the Evening there is a Coldness and Shivering followed by Heat, the Symptoms increase, there is a greater Loss of Strength, inso-much that he can scarce stand upright. The Pain in the Head grows worse, with a Giddiness and Inquietude. Some have a violent Pain in the Back, others in the Side: They have an Anxiety about the *Præcordia*, the internal Parts are hot, the *Fauces* dry, the Pulse contracted, quick and weak, the Urine is pale without a Sediment, and the Breathing difficult.

On the *fourth* or *eleventh Day*, Spots appear in some, chiefly on the Back, Breast, and Arms, with or without Relief. Some have more, some less, of various Colours, as purple, a brownish livid, or a pale Rose. These are sometimes broad, sometimes small; and in many like Flea-bites. These different Spots serve to distinguish the Fever by several Names, such as *miliary*, *puncticular*, *bastard petechial*, and the like.

When the Disease is at its *State*, or *Vigour*, all the Symptoms are worse; the Inquietude runs very high, as well as the Tossing of the Body with unusual Postures. The Mind is disturbed, the Speech incoherent, Sleep wanting, the Sweat is coldish, with a more intense Difficulty of Breathing, and a contracted, unequal, quick, and frequent Pulse, as in the nervous Fever.

When a *subfultus Tendinum*, Want of Thirst, Rumbling in the Belly, Hiccup, an Inflammation of the *Fauces* from *Aphibæ*, Convulsions, a *Syncope*, with Coldness of the Extremities, and a most plentiful Sweat supervene to these Symptoms, they are certain Forerunners of Death. On the other hand, when a Sweat breaks out about or on the critical Days, that is, the *seventh*, *eleventh*, or *fourteenth Day*, and continues several Days, tho' Want of Strength remains; or if there is a Looseness for some Days, it is a Sign of Health: And this the more certain, if the contracted Pulse enlarges, the hard grows soft and becomes more equal; if the Patient is more chearful, and his lying in Bed more sedate, with a Hardness of Hearing, and a turbid Urine, depositing a Sediment. If this happens about the critical Days it is a certain Sign of a happy Event. After this the Sleep, Appetite, and Strength gradually return; but this is seldom the Case before the fourteenth Day.

Patients of a strong Constitution, the common People, and Rustics, with a good *Regimen* alone, generally succeed better than the Weak, Timorous, the Sad, the Thoughtful, the Luxurious, the Slothful, and the Studious. All Excretions by Urine, Stool or Sweat, are bad in the Beginning, and on other Days except the critical. Those who die are carried off by a Phrensy,
or

or an Inflammation of the *Meninges*, or of the *Oesophagus* and *Fauces* from *Aphthæ*, or of the Stomach itself. If Blood is taken away in these Diseases, it is either of a bright red, very fluid and serous, or too thick and blackish.

In the *Cure of this Disease*, the Physician should take Care not to disturb the salutary Excretions, but proceed cautiously, and abstain from strong Medicines of every Kind, watching and assisting the Motions of Nature as much as possible. The *Indications* are, 1. To restrain and prevent the entire Dissolution of the Blood and Humours. 2. To temperate and dilute the *Salino-sulphureous* Acrimony of the Humours, and at the same Time to keep the Fluids fluxile. 3. To promote gently the Excretions by Stool, Urine, the Skin and Spittle. 4. To assist and restore the lost Strength.

To prevent the putrid Dissolutions of the Humours; direct Vinegar, the Juices of Oranges and Lemons, and Syrups of the same; Spirit of Vitriol, Spirit of Salt, Spirit of Nitre, especially those that are dulcified.

To abate the Acrimony, absorbent, testaceous, and bezoardic Powders will be proper. To dilute at the same Time, you may order a Decoction of Barley with *Scorzonera* and Shavings of Hartshorn; as also the Syrup of Orange-Juice, Chicken-Broth, and the like.

1. R. Calc. Antimon. Corn. C. sine igne ppt. Ocul. Canc. Matr. Perlar. [*sive Test. Ostrear. ppt.*] an ʒj. Nitr. depurat. ʒss. M. f. Pulvis. The Dose is from ʒj. to ʒss.

To promote the cuticular Excretions, give diaphoretic simple Waters, alexiterial Waters with the Tincture of Valerian-root, or Snake-root. To assist the Excretions by Stool, common domestic Clysters will be useful; or those made of a Decoction of Barley, Oil of Sweet Almonds, Camomile Flowers, Elder Flowers, Syrup of Violets, Common Salt, or Nitre. Or,

2. R. Lac. Vaccin. ℥ss. Sacchar. rub. Ol. Olivar. an. ʒj. M. f. Enema.

Or you may order the following Laxative, which must be given with Caution.

3. Mann. ʒij. Cremor. Tartar. ʒj. In Aq. Scorzon. ʒiij. vel Aq. Piper. Jamaicens. Solut. Syrup. Violar. ʒss. Ol. Junip. Gut. iij. M. f. Haustus.

To raise the Spirits and restore the Strength, a little Wine will not be improper, with Hartshorn Jellies, China Orange, or Seville Orange Juice, with Sugar.

A con-

A *congruous Regimen* in these Diseases is of very great Consequence; for if the Patient is kept too hot, the Dissolution of the Blood will be promoted, a Costiveness will be induced, the Anxiety will be increased, the impure salt, acrid Humours will be actuated, the Strength will be exhausted, the Sweating will be too speedy and profuse, and Spots will appear on the Skin. On the other hand, if Cold is incautiously admitted, especially to the Feet, Perspiration will be checked, the Eruptions and Spots will be driven back: There will be griping Pains, a Looseness, and the critical Evacuations will be disturbed. All sudden Changes from hot to cold, or cold to hot, are equally bad. A *temperate Regimen* is best. However, Care should be taken that the Patient does not breathe his own Atmosphere full of morbid Exhalations, so very prejudicial to Health; but the Air should be drawn out of the Room, and fresh admitted.

The Perspiration should be constantly kept up, and the Linen of any Kind should not rashly be changed, nor should the Patient be removed from one Bed to another. He should be enjoined not to rise frequently, nor should the Bed be made on critical Days, when the Spots are likely to appear. And if the Bed-cloaths are wet, and must needs be changed, let them be well aired and pretty much worn. A Night or Bed-gown will be also very proper to keep on constantly; for it will be a Defence against cold Air.

An *erect Posture of the Head and Body* is to be shunned, either in or out of Bed, especially if the Pulse is very weak and the Strength little; as also when the Disease is near the State: For in these Cases the Heart will not be able to send a sufficient Quantity of Blood perpendicularly to the Head, and consequently Fainting, sometimes Death, will ensue; or the Motion of the Blood and Arteries will be stopt; all the Motions will be turned inwards; the fibrous and tubulous Substance of the Skin will be contracted; the eruptive Matter, now more depraved, will be repelled, and carried to the nervous Parts; whence Convulsions, Deliriums, and soon after fatal Mortifications will succeed.

The *Mind* should be kept as chearful as possible, and all Occasions shunned of exciting Anger, Fear, Terror, or Pusillanimity in the Patient. His Hope of Recovery should be kept up as much as possible, instead of being terrified with the Prediction of Death. I have known Patients who have laboured under this Disease, and would in all Probability have recovered, if some Priest, or over-wise Physician, had not foretold and inculcated a speedy Death; which has so affected the sick Person with

with Dread and Horror, that there has been an immediate Change manifestly for the worse.

The Patient must abstain from fat Things, Flesh, and Eggs, during the Course of this Disease, for they only tend to increase the Impurity of the Humours, the morbid Matter, and to hasten Death.

It is an undoubted Axiom, that all strong Medicines are hurtful in this Disease; such as Emetics, Purgatives, and Diuretics; as also Sudorifics of too spirituous a Nature: But temperate and moderate Things are very useful.

It must be remembred likewise, that these Fevers have certain Types and Periods, and Exacerbations and Remissions at certain Times; which a Physician should always carefully observe. In the febrile Heat, and when the Symptoms are most intense, Humeatants, Diluents, and the absorbent nitrous Powders above-mentioned will be most proper, with a very moderate external Regimen. When the Paroxysm is ended, the Skin lax, more soft and disposed for Excretions; then Analeptics, Medicines that stimulate; and, if there is Occasion, Bezoardics, and Things that promote Perspiration; as also the Infusion of *Veronica*, *Scordium* and Liquorice, drank as Tea, are likely to do the greatest Service. And because a *Diarrhœa* frequently carries off the Disease, it is never to be stopped, especially about the critical Times, neither with Astringents, Sedatives, nor Opiates: But if Nature tends to this Excretion, and is too sluggish, she is to be assisted by the laxative *Hauslus* above-described, with the Addition of Tamarinds.

When there is too great an internal and external Heat, with Dryness of the Mouth, Thirst, and Watching, then nitrous Medicines will be necessary, with a moderate Quantity of diluting Liquors often repeated. On the other hand, when the Disposition is sluggish, phlegmatic, and timorous, the Heat very mild, no Thirst, the Pulse weak and languid, with a Prostration of Strength, Sleepiness, and *Torpor* of the Mind, cooling Things must be avoided, and Analeptics, together with the bezoardic Tinctures, must be given, a little at a Time, and often. When the Eruptions are of the miliary Kind, and red, fixt bezoardic Powders, as also Diluents, Demulcents, and Emulsions, will be most serviceable.

When there is a Pain in the Head with a Delirium, cut open a live Chicken or Pigeon, and apply it to the Head when the Hair is shaved off. In Fainting, Vomiting, the *Cardialgia*, or extreme Lowness, apply a Plaister of *Venice Treacle*, expressed Oil of Nutmegs, Camphire, Balsam of *Peru*, Saffron, Oil of Juniper, and a little Spirit of Wine to the Region of the *Præcordia*;

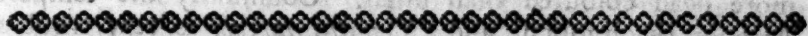
cordia; as also in a Hiccup, (but more especially a *Musk Bolus*.) In Dryness and Heat of the Fauces, direct Hartshorn Jellies with Juice of Lemons and Sugar-Candy, or Syrup of Mulberries. Likewise let the Mouth be washed with a Decoction of Figs, Syrup of Mulberries, and Nitre. When the Patient is very sleepy, let the Legs and Soles of the Feet be washed with Vinegar of Rue, or apply a mild Blister to the Calves of the Legs. If the striking in of millary Eruptions causes Inquietudes and Anxieties, succinated Spirit of Hartshorn will be proper, with dulcified Spirit of Nitre. In a Cough give Oil of Sweet Almonds, and Extract of Saffron.

There is no Evacuation so dangerous as *bleeding at the Nose*; for then there is a Congestion of Blood in the Head from the Spasms of the lower Parts. However, if the Flux of Blood is moderate, and the Body abounds with it, instead of being hurtful, it will relieve the Head, though this seldom happens. When there are a few Drops only without Alleviation, they portend a Delirium and an Inflammation of the *Fauces*: But when the Flux is copious, the Strength will diminish, and the Eruptions return inwards not without Danger. Therefore, to prevent a Conflux of Blood to the Head, the Feet must be always kept in a moderate Heat and Moisture; mild Blisters should be laid to the Calves of the Legs, and the Body should be opened with Clysters or Solutions of Manna. These will also be serviceable when the Hæmorrhage is too large. But when it is too little, and the Eyes look red and wild, with a strong Pulsation of the temporal Arteries, besides the former, it will be proper to apply Cupping Glasses to the Nape of the Neck, or to thrust a Straw up the Nose to cause it to bleed, or to use a scarifying Instrument. When the Stools are too frequent use bezoardic Powders, with a few Grains of the *Cortex Eleutheriæ*; or, which is better, anoint the Abdomen with a Mixture of expressed Oil of Nutmegs, essential Oil of Mint, and Balsam of *Peru*. When the Sweats are too profuse, too many Bed-cloaths must be avoided, and no hot Infusions must be drank.

Bleeding in these Fevers must be used with great Circumspection; for it is much more proper as a Preservative than a Cure. But when the Disease has made its Onset, with great Loss of Strength, complicated with catarrhal Disorders, and when putrid and malignant Fevers are rife, it must be always omitted. If the Stomach has been lately surfeited with incongruous Aliment, a Grain or two of *Tartar Emetic* in a Solution of Manna will be necessary, because it will diminish the *Fomes* of the Disease. *Blisters* will be of great Use when a Retrocession of the Eruptions is apprehended, when the Excretions are slow, and
when

when there is a Sleepiness and *Torpor*. In which Cases they may be laid to the Arms and Calves of the Legs. HOFFMAN.

Consult the following Section.



Of the Malignant, Goal, and Spotted FEVERS.

THE true *spotted Fevers* are very *malignant, contagious, and detrimental* to the Head and Strength, attended with *Spots of various Colours*, arising from a Corruption of the vital Fluids, and a putrid Dissolution consequent thereupon.

These *petechial Fevers* are deservedly called *malignant, or poisonous*, as they generally proceed from a most subtle, active, virulent Vapour, or *Miasma*, which is infectious, from a noxious Steam arising from the Body of the Patient. At first they often seem mild and gentle, and have the Appearance of *catarrhal Fevers*; but they soon exert their virulent Effects in a most fatal Manner.

At first the Patient complains of great Weakness and Loss of Strength, that he can scarce walk or stand upright, and is apt to faint away.

The Head aches, and, from the very Beginning, is hot, dull, attended with a Dejection of Mind, and a Kind of Desperation. There is a constant Watchfulness, or, if there is any Sleep, it is not refreshing; the Appetite is lost; the Countenance is dejected; the Pulse is languid, small, and unequal; the very lying in Bed is disorderly, and unusual; there is an Oppression of the Breast, sometimes a dry Cough, an undulatory and tremulous Twitching of the muscular and tendinous Fibres, with a *Subsultus Tendinum*. Many neither complain of Heat, nor Pain, nor Anxiety, and assert that they feel nothing bad, but Weakness and Want of Sleep. The Urine is generally thin at first, and like that of sound People. On the fourth, fifth, or the seventh Day, the Spots appear principally on the Back and Loins, of various Colours, generally without Relief; wherefore they are rather symptomatical than critical. HOFF.

Huxham says, these Fevers attack with much more Violence than the slow and nervous; the *Rigors*, if any, are greater; the Heats sharper, and more lasting, yet at first sudden, transient, and remittent; the Pulse more tense or hard, but commonly quick and small, though sometimes slow and seemingly regular for a Time, and then fluttering and unequal. The Head-ach, Giddiness, Nausea, and Vomiting, are much more considerable even from the very Beginning. Sometimes a severe
fixed

fixed Pain is felt in one or both Temples, or over one or both Eye-brows, frequently in the Bottom of the Orbit of the Eyes. The Eyes always appear very full, heavy, yellowish, and often a little inflamed. The Countenance seems bloated, and more dead coloured than usual. Commonly the temporal Arteries throb much, and a *Tinnitus Aurium* is very troublesome; a strong Vibration also of the carotid Arteries comes on frequently in the Advance of the Fever, though the Pulse at the Wrist may be small; nay, even low: This is a certain Sign of an impending *Delirium*.

The Prostration of Spirits, Weakness, and Faintness, are often surprizingly great, and sudden; sometimes, when the Pulse seems tolerably strong, the Respiration is very laborious, and interrupted with a Kind of Sighing, or Sobbing, and the Breath is hot and offensive.

There is generally a Sort of *Lumbago*, or Pain in the Back and Loins, a Weariness, Soreness, and Pain in the Limbs. Sometimes a great Heat, Load, and Pain at the Pit of the Stomach, with a perpetual vomiting of porraceous or black Bile, of a nauseous Smell, with a troublesome Hiccup.

The Tongue, at the Beginning, is white, but grows daily more dark and dry, or of a shining livid Colour, with a Kind of Bubble at the Top; sometimes exceeding black for many Days: At the Height, it is generally dry, stiff, and black, and the Speech scarcely intelligible.

The Thirst, in the Increase of the Fever, is commonly very great, sometimes unquenchable; and all the Drinks seem bitter and maukish; at other Times there is no Thirst, tho' the Mouth and Tongue are exceedingly foul and dry; this is a dangerous Symptom, and ends in a Phrenzy, or *Coma*. The Lips and Teeth, near the *State*, are furred with a very black tenacious *Sordes*.

At the Onset of the Fever the Urine is often crude, pale and vapid, but grows to so high a Colour as to resemble a strong Lixivium, or Citron Urine, tinged with a very small Quantity of Blood; it has no Sediment, or Cloud, for many Days together, but by Degrees grows darker, like dead strong Beer, and smells offensive.

The Stools, especially near the *State*, or in the Decline of the Fever, are for the most Part very offensive, green, livid or black, frequently with severe Gripes or Blood. When they are more yellow or brown, the less is the Danger; but the Danger is greatest of all when they come away insensibly. If the Belly be hard, swelled, and tense, it is a very bad Symptom.

A gentle

A gentle *Diarrhœa* is often very beneficial, by which Nature carries off the morbid Matter.

The more florid the Spots are, the less is the Danger; and it is a good Sign, if the black or violet become of a brighter Colour. The large, black or livid Spots are almost always attended with profuse Bleedings. The small, dusky, brown Spots, like Freckles, are almost as bad as the livid and black. Sometimes they are attended with profuse, cold, clammy Sweats; at which Time the Spots vanish without any Advantage.

The Eruption of the Spots is uncertain; sometimes they appear on the fourth or fifth Day; sometimes not till the eleventh, or later. The *Vibices*, or large livid, or dark greenish Marks, seldom appear till very near the fatal Period. Sometimes about the eleventh or fourteenth Day, when the Sweats are profuse, the Spots disappear, and vast Quantities of small, white, miliary Pustules break out. If there is an itching, smarting, red Rash, it commonly greatly relieves the Sick, as well as large, fretting, watry Bladders, on the Back, Breast, and Shoulders. A scabby Eruption about the Lips and Nose is a salutary Symptom; the more hot and angry the better. Brown, dark *Aphthæ* are more uncertain and dangerous, as well as those exceeding white, and thick like Lard. They are followed without Difficulty of Swallowing, Pain, and Ulceration of the *Fauces* and *Oesophagus*, with incessant Hiccup: The whole *Primæ Viæ* are at length affected, a bloody Dysentery comes on, and a Mortification of the Intestines.

Pringle observes, that in *Hospital, Goal, or Camp Fevers*, the first Complaints are gentle Horrors, and little feverish Heats, alternately succeeding each other, with Loss of Appetite; the Disorder being greatest at Night, the Body is hot, the Sleep interrupted, and not refreshing. They have constantly some Pain and Confusion in the Head, chiefly about the Forehead: The Pulse is, at first, but little quicker than the natural, and the Drought, if any, is inconsiderable. They are too ill to mind Business, and too well to be confined. In this State, a Change of Air, with a Vomit and Sweat, will perform a Cure; yet a large Bleeding at this Time will sink the Pulse, and bring on a *Delirium*.

When the Symptoms come on quick and violent, the Fever seems to be inflammatory, and can only be distinguished by a Knowledge of the Circumstances; and Bleeding yields no Relief, but exasperates the Complaints. The aforesaid Symptoms are now more high, with great Lassitude, *Nausea*, and Pains in the Back, with Pain and Confusion in the Head, and great Dejection of Spirits.

The Pulse at this Time is generally quick and full ; now a moderate Bleeding affects the Pulse but little ; if large, it will sink and bring on a Delirium. The worst Kind of Blood is when the *Craffamentum* is dissolved, which is a Sign of high Putrefaction.

The Urine is sometimes at first of a reddish, or Flame Colour, which it preserves throughout ; at other Times it is pale, and varies from Day to Day, being sometimes clear, sometimes clouded ; but towards the End, if the Distemper takes a favourable Turn, it becomes thick, and at last deposits a Sediment : Yet many have recovered without any Sediment at all, if the Water has been thick about the Crisis.

If the Patient lies warm, the Body is generally costive ; if cold, there is a *Diarrhœa*. If they have bilious Stools when they are warm, they are critical, and not to be checked unless immoderate. In the worst Kind of these Fevers, in the last Stage, a *Diarrhœa* commonly carries the Patient off ; but then the Stools are involuntary, colliquative, ichorous, or blackish, and of a cadaverous Smell, which are the Effects of a Mortification in the Bowels.

The Heat of the Body at first is not considerable ; but if the Pulse is felt for a while, there is an uncommon Heat, which remains upon the Fingers some Minutes afterwards. A Day or two before Death, the Extremities feel quite cold, and then the Pulse is hardly to be distinguished.

The Skin is generally dry and parched, yet in the Beginning there are often imperfect Sweats, without any Relief. A continued and generous Sweat is the surest Cure.

The Tongue is generally dry, hard, and black, with deep Chaps, but towards the last it is soft and moist, and the Colour is a Mixture of green and yellow. The Drought is sometimes great, at other Times very little.

Some preserve their Senses through the Course of the Disease, except a Confusion and Stupor, but few keep them till Death, if it prove fatal. They sleep seldom, and seem to be pensive and in deep Thought. The Face is not ghastly nor morbid, till towards the last. The Confusion of the Head often rises to a *Delirium*, especially at Night, but seldom changes to Rage. A Tremor is more common than a *Subsultus Tendinum*. The Pulse sinks all along ; the Stupor, or *Delirium*, and Tremor increase, and the Spirits are relieved in Proportion to its rising to the Head. Frequently the Patient is dull of hearing from the very Beginning, and at last grows almost deaf.

There

There is always a great Dejection of Mind, and Failure of Strength. When the *Delirium* is at its Height, the Face is commonly flushed, and the Eyes red, unless after large Evacuations; then it appears meagre: The Eyelids in Slumbers are only half shut, and the Voice, which is constantly slow and low, sinks to a Degree scarce to be heard.

When the Fever is protracted with a low Pulse, they have a particular craving for something cordial; and nothing is so acceptable as Wine. They long for no Food, but will take Panada if mixt with Wine.

Vomiting and Sickness at the Stomach, though frequent, are casual. Neither pleuritic Stiches, Difficulty of Breathing, nor flying Pains, are any Part of the Disease, unless it falls upon a weak Part.

There are Spots, but not always. In Hospitals they are less usual at the first breaking out of the Disease, but when the Air is more corrupted, the Spots are common. They are of the petechial Kind, of an obscure red, paler than the Measles, not raised above the Skin, of no regular Shape, but confluent; yet upon a nearer Inspection, the Interstices may be seen. They are generally not very conspicuous. These Spots are very irregular, sometimes appearing on the fourth or fifth Day, and at others on the fourteenth. They are neither critical nor mortal Signs, but dangerous; if Purple, they are more ominous, but not absolutely mortal. In a few Cases there have been purple Streaks and Blotches. These sometimes, as well as the Spots, do not appear till after Death. This Fever, on account of its Exacerbations at Night, may be looked upon as the lowest Degree of the remitting Kind.

The Duration is uncertain, and in Proportion to the Virulence. Their Course is generally from fourteen to twenty Days: Some have died or recovered after four Weeks. When the Course is long, it commonly terminates in Abscesses of the parotid or axillary Glands; sometimes in an hectic: Some, after this Fever is over, fall into an irregular Intermittent; many complain of a Pain in their Limbs, and Want of Rest, and almost all of great Weakness, Confusion in their Heads, and Noise in their Ears. When the Air is highly malignant, the Disease terminates, in five or six Days, either in Death or a critical Sweat.

The most peculiar Symptoms of this Disease, are always a singular Attack upon the Head, as a Stupor, or Pain; and if it lingers, a slow, low Voice and sinking of the Spirits, without any large Evacuation; pale Urine, petechial Spots, the bad Effects of large Bleeding, or too many Clysters; lastly,

the Disagreement of cooling Medicines, excepting in the Beginning; and on the other hand, the Agreement with Wine, Volatiles, and other Cordials, during the greatest Part of the Disease.

I have been the more particular in reciting the Symptoms of these Diseases, because it will tend to give a farther Light into their Nature, and consequently to establish a more certain Method of Cure; for I am persuaded they are not well understood by the Generality. PRINGLE.

As to the *Prognostics*, the Spots are so far from being salutary, that the more plentiful they are, the greater is the Degree of the Corruption; when they are livid, lead-coloured, and of a greenish Black, they shew a sphacelous Corruption. Those who escape are not freed by a cutaneous Excretion, but by large Sweats, breathing a stinking Acor; or by critical Fluxes of the Belly; which happen by the Benefit of Nature, when the Corruption of the Fluids is not great. Many are apt to fall into a sphacelous Corruption of the Stomach, Intestines, and other *Viscera*, or into a Phrensy, or more frequently into an anginous Inflammation of the *Fauces* and *Oesophagus*, as appears from the intolerable Smell which happens after Death. This unhappy Event is prefiged, if there is no Thirst, or one that is unquenchable; if the Tongue is dry, chapt, black, the *Fauces* inflamed and beset with *Sordes*, with difficult Swallowing; if after the Eruption of the Spots, a difficult Breathing and Straitness of the Breast remains and gains Ground, or if a *Delirium* increases after Sweating, and a Flux of the Belly, the Urine being at the same Time turbid, and depositing no Sediment; lastly, if the Eyes are dim, the Patient catching at Straws; if there is a *Subsultus Tendinum*, if the Excrements come away insensibly, or if there is a cold Sweat with Convulsions. HOFFMANN.

Pringle observes, that those who are weakened by other Distempers, or their Cures, are more susceptible of the Goal or Hospital Fevers than the strong and vigorous; and that one who is recovered is more subject to relapse than he was to be first attacked.

All the *Prognostics*, says he, taken singly, are uncertain. The following Signs are good; to have no *Delirium*, to have the Pulse neither very low nor quick, or, if sunk, to have it rise by Wine or Cordials, with an Abatement of the *Delirium*; and to have the Tongue moist and of a natural Colour. It seems peculiar to this Fever, that Deafness is generally a good Sign. The natural and best Crisis is by Sweat, when the Pulse rises, and the Symptoms abate; next to that is an insensible

sensible Perspiration, which is known by the Softness of the Skin, Moisture of the Tongue, and a Remission of the other Symptoms. Bilious Stools, with turbid Urine, and a moist Tongue, may be considered as Signs of a favourable Crisis. But the contrary of all these are bad, as also the *Subsultus Tendinum*, inflamed Eyes, and great Anxiety. It is observed to be among the worst Signs, when the Patient complains of Blindness, or when he cannot lie but on his Back, and pulls up his Knees; or if, when insensible, he endeavours to uncover his Breast, or makes frequent Attempts to get out of Bed. If there are ichorous, cadaverous, and involuntary Stools, it is a Sign of certain Death.

The *formal Ratio* of these pernicious Fevers consists in the putrid Dissolution, or Colliquation of the Blood and vital Fluids, especially of that highly elastic, fine Fluid, which is contained in the Blood, and separated in the Brain and spinal Marrow, by which it is distributed by the Nerves to all the Body, endued with Sense and Motion, for it greatly vitiates and defiles this Liquid. However, such is the Nature and Power of that poisonous Vapour, by which sound Bodies are infected, that it not only induces a putrid Fermentation into the Blood and other Fluids, but acts immediately on the inward and nervous Parts of the Brain, which it corrupts, and produces a Languor in the vital and animal Powers, while the State of the Blood and Humours remain free from Corruption.

This violent Vapour enters the Body by the Nostrils, *Fauces*, and *Bronchia*; for the Nerves of the first and second Conjugation are no where so exposed as in the Cavity of the Nostrils; whence it immediately reaches the Nerves in the Brain, and renders the Patient light-headed, with a Dulness of the Head, a Loss of Strength, and a vertiginous Affection. It likewise mixes with the *Saliva*, descends into the Stomach, which is a nervous Part, and there takes up its principal Residence; whence the bad Symptoms generally appear first in the Stomach and *Præcordia*, with a *Nausea*, and Inclination to vomit, as also a *Diarrhœa* with Gripes, or a Costiveness, with loathing of Food, Anxiety of the *Præcordia*, and watery Eructations from the Stomach.

Hence the Reason evidently appears, why nothing is more proper to guard against this Disease than turning away one's Face from the Patient, frequent spitting, chewing *Angelica*, *Zedoary*, *impernel*, and smoking Tobacco; hence likewise appears, why the Force of this Poison is exerted in the Stomach, which is beset with copious Crudities, and pituitous and *saliv*

lival Sordes; and likewise why gentle Emetics, joined to *Alexipharmics*, commonly destroy the Disease in the Bud.

It may be induced by a bad State of the Air; for a long, moist, rainy, cloudy, and southerly State of the Air, dulls and depresses the Motions of the Solids and Fluids necessary for Life; to this may be added, a long and frequent Inundation of Water, which is apt to generate putrid Diseases, as likewise the Exhalations arising from putrid unburied Bodies, or from the Excrements of Animals, especially if confined, and shut up from the Air. There is likewise a Disposition in the Body itself towards these Diseases; for Experience shews us, that those of a *sanguineo-phlegmatic Constitution*, of a lax and spongy Nature, who are fearful and anxious, given to Luxury, oppressed with Cares, weakened with Labour, and Bleeding, are most apt to receive the Infection; likewise such as labour under the Suppression of usual Evacuations,

In the *Regimen*, it is necessary, if possible, to breathe a serene, temperately warm Air; the Room should not be heated too much, it being found to be hurtful. The Patient should eat nothing solid in the Decline of the Disease, nor after it. A free use of Food, of nourishing and comforting Broths abounding with oleous Particles, is pernicious, especially about the critical Days, in the State of the Disease, or when there is any critical Evacuation. Nothing is more hurtful than an erect Situation, as I have often observed in other malignant and eruptive Diseases, because the Blood has a more languid Motion from the Heart, and cannot be driven perpendicularly to the Head.

Alexipharmics, volatile Salts, hot and spirituous *Bezoardics*, are hurtful, especially with a hot Regimen, for they dissolve the Blood, and increase the Number of Spots, or cause Head-achs, Inflammations, or copious Sweats. These Things taken by Way of Prevention, have precipitated the Patient into this Disease. But if volatile *Alexipharmics* are taken moderately and cautiously, with *Analeptics*, when the Spots have disappeared, or when there have been high Anxieties and Debilities from Cold, or an erect Situation, they have been serviceable. We have likewise advised their Use, when the Circulation of the Blood was in its Vigour, for then they dissipate a great Part of the peccant Matter; likewise when the Crisis is coming on, *Bezoardic* Volatiles in a moderate Dose, hasten the critical Evacuations, and raise the weak and languid Motions; but we have been careful not to throw the Patient into a Sweat, and thereby induce a Disposition to a slow Fever.

Bleeding

Bleeding has been good in *pletboric* Bodies, and in those who have been accustomed to *Hæmorrhages*; on the contrary, if the Patient is low or weak, *Bleeding* is hurtful.

Gentle Vomits are useful by Way of Prevention, and in the very Beginning of the Disease; but in the Progress and State, have had a bad Effect.

Blisters have been greatly praised in the State of the Disease, when there has been a *Dillirium*, a *Sopor*, and *Convulsions*, being applied to the Neck.

We reject all Opiates and soporiferous Medicines, on account of the Pulse and Want of Strength, because they retard the Excretions, increase the Malignity, and so hasten Death.

The Medicines I use are Elder Flower Water, that of Limes, Elms, Roses, of the Tops of *Scordium*, *Scabious*, and *Carduus Benedictus*; as also Syrups of Citrons, Pomegranates, and the Juice of Roses; Powders of Mother of Pearl, diaphoretic Antimony, Crabs Eyes, Amber, *Terra Sigillata*, burnt Hartshorn, pure Nitre; *Alexipharmics* are, Camphire, Essence and Extract of *Scordium*, *Vincetoxicum*, the *Bezoardic* Spirit and Tincture, the Essence or Spirit of Vitriol, and dulcified Spirit of Nitre; my Moisteners, the Decoction of *Scorzonera*, Shavings and Jelly of Hartshorn; my Analeptics, Orange-Flower Water, fresh Oil of Citrons, with Sugar, Confection of Alkermes, and my *Balsam of Life*; my *Antispasmodics*, Essence of Castor, Cinnabar, and succinated Spirit of Hartshorn.

In the Beginning of the Disease, I use a *Bezoardic* Powder of Nitre, and a little Camphire, often repeated; in the Progress and State of it, I advise a Mixture of temperate Waters, *Diaphoretics*, *Analeptics*, *Antispasmodics*, and cordial *Bezoardic* Powders, with a little Juice of Citrons. In the Drink I put Nitre, or philosophic Spirit of Vitriol, or sulphurated *Clyffus* of Antimony to keep the Body open. I also give Drink of the filtrated Decoction of Hartshorn, and Root of *Scorzonera*, either hot or cold. About the critical Day I give gentle *Alexipharmics*, with Things to promote Sweat, when Nature seems to tend that Way.

This is the best and surest Method of Cure, as I have tried a hundred Times. But if the Vomiting is too great, with an Anxiety of the *Præcordia*, and profuse *Diarrhæas*, accompanied with Gripes, I apply outwardly *Venice Treacle*, expressed Oil of Nutmegs, Camphire, Oil of Cloves, and *Balsam of Peru*, mixt together, to the Region of the Stomach. If a *Diarrhæa* exhausts the Patients too much, I give a nitrous bezoardic Powder, with a little Camphire, and *Theriaca Cælestis*. In a Phrensy and acute Pain in the Head, I advise the external Use of Cam-

phire and Spirits of Wine, and *Sal Ammoniac*, with Oil of Rue and Lavender. If the Body is coltive, with Gripes, I prescribe lenient Clysters, or such as are made entirely of Oil. To raise the Strength, I allow spirituous Things, such as comfort and are aromatic, but they must be externally applied to the Pulses, or Pit of the Stomach, or Nostrils. To quench Thirst, I advise an Electuary of Muscovado Sugar, and dulcified Spirit of Nitre. HOFFMANN.

Huxham observes, that Bleeding, where there is a Redundance of Blood, is proper, nay, necessary, in the strong and plethoric, which should be performed as early as possible. A quick, tense Pulse, sharp Heat, great Difficulty of Breathing, Palpitation of the Heart, and violent Pain of the Head and Back, evidently demand it. But much less Blood should be taken off than in a *Peripneumony*, which often makes its Attack much in the same Manner: Yet, the sudden Weakness, great Dejection of Spirits, Trembling of the Hands, Paleness and Crudity of the Urine, together with the Absence of a Cough, and Heat of the Breath, which attend petechial Fevers, distinguish the one from the other. The Blood in malignant Fevers is of a much looser Contexture, and softer Consistence, than that of *Pleuritics*, or *Peripneumonics*.

That this Disease affects the Blood, but primarily the Animal Spirits, appears from the sudden Damp, Tremblings, and great Dejection of Spirits. Now the Nerves and Animal Spirits being infected by the contagious *Miasmata*, do not sufficiently and regularly actuate the muscular Fibres and Vessels; whence arise great Debility, and too weak a Vibration of the vascular System; and hence the Blood, in some Places, runs into grumous Concretions, and in others is quite dissolved. But though Bleeding may be proper at first, a subsequent one may be pernicious, for the first Blood frequently appears florid, but that which is drawn twenty-four Hours after, is commonly livid, black, and too thin; at the third Time it is livid, dissolved, and sanious; at least this is frequently the Case in malignant, petechial Fevers. The Pulse sinks oftentimes surprizingly after a second Bleeding, nay, sometimes after a first.

Nature, many Times, strives in vain to discharge the irritating Matter, by Vomit, without the Assistance of Art, and therefore something to promote it will render it much easier, which may be done by an Infusion, or Decoction of *Ipecacuanha*, or *Oxymel Scilliticum*, with a slight Infusion of Camomile Flowers. If, after this, the Vomiting continues, give a little *Venice Treacle* in a Mixture of Salt of Wormwood, Juice of Lemons, Mint-Water,

Water, &c. and apply a Cataplasm of *Species Aromaticæ* with *Theriaca*, which generally succeeds.

The *Primæ Viæ* should be unloaded by very gentle Methods, such as Clysters of Milk, Sugar, and Salt; Laxatives of Manna, Cream of Tartar; *Glauber's* purging Salt, Tamarinds, and Rhubarb; by such Means a Puke, or Stool or two may be promoted, at any Time of the Fever, when indicated by a nauseous bitter Taste in the Mouth, Sickness at Stomach, nidorous and fetid Eructations; or by too great Costiveness, tumid Abdomen, *Borborygmi*, griping Pains, &c.

When there are Signs of a Redundancy of the Bile, it should be forthwith discharged by Vomit or Stool, as Nature points out, which is often succeeded by an amazing Change for the better, where an inexpressible Anxiety, Load on the *Præcordia*, perpetual Sickness, Eructation, and *Singultus* had preceded. The extreme Foulness of the Tongue, Sickness, and Load at the Stomach, with a loathsome, bitter Taste, and horribly offensive, stinking Breath, and Eructations, shew the Condition of the Stomach; and the abominably fetid, black, bilious Stools, the Necessity and Advantage of the Discharge.

Between the seventh and fourteenth Days Nature endeavours to relieve herself by Vomit, or more frequently by loose Stools; then I give a gentle Laxative the eighth and ninth Day, unless I find some Eruption appearing, or a kindly Sweat forbid it. Till this Time I seldom use any Kind of Purgative, except a little Manna, Cream of Tartar, or the like, at the very Beginning; but I order an emollient, laxative Clyster every second or third Day, as there may be Occasion. I repeat the Laxative from Time to Time, as the Symptoms indicate, and during the Operation carefully support the Patient with proper cordial Diet Drink, and Medicines; when Nature over-acts her Part, and runs into a profuse *Diarrhœa* or Dysentery, it ought to be restrained by proper astringent *Alexipharmics*, such as *Theriaca Andromachi*, *Confect. Fracastor*. Tincture of Roses, red Wine mulled with Cinnamon, &c. but, above all, if the Case be very urgent, by an astringent Clyster of *Confect. Fracast.* or *Theriaca Andromachi*, with a small Quantity of Decoction of *Tormentil*, red Roses, or *Japan Earth*. But it is always of dangerous Consequence to suppress a critical *Diarrhœa* too soon, and therefore it will be necessary to give a small Dose or two of Rhubarb first of all. A *Diarrhœa*, at the first, is prejudicial, if profuse, but at the State salutary; and it is certainly so when attended with a gentle breathing Sweat, or warm Moisture of the Skin.

But the constant and grand Effort of Nature, is to throw off the putrid Malignancy through the Pores of the Skin; for I
never

never saw any of these Fevers carried off till more or less of a Sweat appeared. If it be a breathing Sweat at the State of the Disease, and the Pulse grows more open, soft, and calm a little before and during its Continuance, it is always salutary; but if it be profuse, cold, clammy, or partial, about the Head and Breast only, the Sign is not good. Profuse Sweats in the Beginning are generally pernicious, especially if a *Rigor* supervenes.

Sweats should never be forced by violent hot Medicines, Regimen, &c. plentiful subacid Diluents will be sufficient, and gentle cordial Diaphoretics.

Those of strong Fibres, and rich, dense Blood, do not require such warm Medicines as the feeble and phlegmatic. But as the Blood and Humours tend to Dissolution, Stagnation, and Putrefaction, vegetable and mineral Acids are highly serviceable, and the subastringent *Alexipharmics* are very useful. But I am very certain, that the Use of volatile, oleous Salts and Spirits is very hurtful, as they augment the putrescent State of the Humours, and are so many Spurrers to swifter Destruction; this they will do in the most healthful; even the pestilential *Miasmata* themselves are probably nothing else but highly volatilized and subtilized animal Salts.

But *Pringle* is of a contrary Opinion; nor is he ignorant that the volatile Salts have been objected to, as a strong Alkali, and that they consequently dispose Humours to Putrefaction; for we must consider, adds he, that Alkalis and putrid Substances are very different; insomuch, that I find, from Experiments, out of the Body, the Salt of *Hartshorn* is even *antiseptic*, since it preserves animal Substances from Putrefaction.

Huxham observes, that Blisters hastily and improperly applied, in the Beginning, when the Fever runs high, are improper, and tend to promote the Dissolution and Putrefaction of the Blood; but when the Fever is on the Decline, when the Solids grow turpid, the Circulation languid, the Spirits *effete*, the Sick comatous, they are of exceeding great Use, and the Patient should drink freely of Whey, Emulsion, or some other subacid or demulcent Liquor.

I use *Camphire* as a Corrector of the Acrimony of *Cantharides*, for it blunts the *Spiculæ* of the Salts by an exceeding fine volatile, vegetable Sulphur. But it is of greater Use in promoting a *Diaphoresis*, or an easy Sweat, and brings on a Composure of the Spirits, and an easy Sleep, when Opiates fail: when joined with an Opiate it is the most certain Sudorific in Nature, and the *Elixir Asthmaticum* is, in this respect, a most noble Medicine,

As Acids and Subastringents are given to preserve the Crasis of the Blood, the Tone of the Vessels, and to prevent the farther Putrefaction of the Humours, Diaphoretics, especially Camphire, should be joined with them.

I have used the following Prescription of the *Bark* for many Years with Success, not only in intermittent, and slow nervous Fevers, but also in the putrid, pestilential, and petechial, in the Decline, though the Remissions have been very obscure; but if the Patient is costive, or hath a tense or tumid *Abdomen*, I always premise a Dose of Rhubarb, Manna, or the like.

i. R. Cort. Peruvian. pulv. ℥ij. Flav. Aurant. Hiss. ℥iss. Rad. Serpent. Virgin. ℥iij. Croc. Anglic. ℥iv. Coccinel. ℥ij. Sop. Vin. Gallic. ℥xx. M. f. Infusio clausa per Dies aliquot (tres saltem quatuorve) deinde coletur.

Of this I give from ʒj. to ℥ss. every fourth, sixth, or eighth Hour, with ten, fifteen, or twenty Drops of *Elixir Vitrioli*, out of any appropriated Draught, or Diluted Wine. The above Composition tends to strengthen the Solids, to prevent the farther Dissolution and Corruption of the Blood, and in the Event to restore its *Crasis*.

With this View, I also recommend a generous red Wine, as a most noble, natural, subastringent Cordial, which is of high Service in the State, but more especially in the Decline of these Fevers, acidulated with the Juice of *Seville Oranges*, or Lemons, as also with Cinnamon, the Rind of *Seville Oranges*, and the like, to which a few Drops of *Elixir Vitrioli* may be added. *Rhenish* and *French* white Wines, when diluted, are also a most salutary Drink, and generous Cyder little inferior to either.

Pringle says, in the Cure of the Camp and Gaol Fevers, it will be best to distinguish it into three Periods: The first is, when the Person is able to go about; the second begins with his Confinement, when the Fever is apparent, the Pulse full and quick, and the Head much affected; and the third, when the Pulse sinks, and a Stupor comes on, with other Symptoms.

In the *first Period* it is best to remove the Patient out of the foul Air, and if that cannot be done, it is to be purified by Fires, by opening Doors and Windows, burning Incense, or the like. The Curtains should be undrawn, and a free Ventilation procured.

After this, I give a Vomit of *Ipecacuanha*, and after that a moderate Bolus of *Tberiaca*, with ten Grains of *Salt of Hartshorn*, and some Draughts of Vinegar-Whey, which is to be repeated the next Night, without the Vomit; before which, if the Person is plethoric, or begins to have a greater Degree of Fever, it will

be

be necessary to take away Blood. And as the Cure depends upon a free *Diaphoresis*, it will be necessary to wash the Feet and Hands with warm Vinegar and Water.

In the *second Stage*, when the Fever is manifest, with a full Pulse, it will be always proper to begin with a small or moderate Bleeding. When the Symptoms are high, a plentiful Evacuation seems requisite; yet large Bleedings have been generally fatal, by sinking the Pulse and bringing on a Stupor or Delirium. The Patient is generally worse from a second Bleeding, unless the Lungs are inflamed.

If the Head only suffers, it is best to bleed by Leeches at the Temples; but in a Delirium, with a sunk Pulse, Leeches do no good, and Bleeding is pernicious; many have recovered without, but very few who have lost much Blood.

Vomits are to be cautiously used; if the Stomach be foul, an Emetic is proper in the Beginning of the second Period. When the Fever is fixed, and a Vomiting supervenes, which is always a bad Symptom, an Emetic will be dangerous: Draughts of Camomile Tea are the most that can be given; and then Medicines that quiet the Spasms; to which should be added a Clyster, to determine the Humours downward.

The next Care is to promote a *Diaphoresis*, which must be attempted by the milder Sudorifics. The *Contrayerva Powders*, with *Nitre*, are safe, but scarce efficacious; much Dilution oppresses the Stomach, and Volatiles alone heat too much, neither will Acids do alone, but the two combined are powerful, and therefore when a Sweat is to be moved, the best Medicine I know of is *Spiritus Mindereri*.

If the Patient can be brought to a thorough Sweat, with a rising Pulse, it may prove critical, though it must never be forced; but if spontaneous and profuse in the Beginning, with a low Pulse, it must be checked. Throughout the second Stage, Acids are necessary. Costiveness is to be prevented, by emollient Clysters. Blisters at this Time are always without Success. Opiates are dangerous, for if they do not sweat, they fix the Delirium. When the Pulse sinks with a *Diarrhoea*, they are necessary, and some Drops of *Tinctura Thebaita* may be added to the Medicines of the third Stage.

The *third Period* is the longest, in which the Pulse sinks, the Stupor increases, and the Spots often appear. This happens about three or four Days after the Fever is formed. If the Patient has been once or twice largely blooded at first, the Disease usually passes over the second State, insomuch that his Pulse sinks at once, and he becomes delirious.

Our most general Remedies have been an *alexipharmic* Decoction, and a cordial Mixture of Wine given alternately; the Patient should be never above two Hours without taking some of them; a Rule absolutely necessary to be observed.

The *Alexipharmic* was three Drams of the *Bark*, and also of the *Radix Serpentaria*, in a Pint of Water, boiled down to half, with the Addition of an Ounce and a half of strong Water, and the whole Quantity was to be taken in thirty-six Hours, or two Days at most, which supports the Strength, and promotes a *Diaphoresis*; and when the Fever is gone, it is a Preservative against a Relapse.

The Cordial consists of a moderate Quantity of a spirituous Water, with a larger Dose than ordinary of the Salts of Hartshorn, from one Scruple to half a Dram in a Day. But out of the Hospital there was no Restriction as to the Quantity of Wine, and I either omitted the Volatile, or used it sparingly. It is good in great Sinkings, after unseasonable Bleedings, or long Want of Nourishment. I have sometimes added the *Spiritus Mindereri*.

As for the Cordial, there is nothing to be compared to Wine, in the low State of the Fever. The common Men had half a Pint a Day, of the strong Kind. Those out of the Hospital had French Wine, of which they have drank a Quart in a Day, half of which has been undiluted. The Hospital Wine was sometimes given in Whey, but commonly in *Panada*, which was their only Food. I have known several recover from the lowest State, by the Use of Wine, when they have refused the Decoction on Account of its Taste, taking nothing but their *Panada* Wine, and the volatile Cordial, every two Hours by Turns.

A *Stupor* is inseparable from this Fever, in its low State, which in an Evening is apt to turn to a slight Delirium: If the Delirium is great, with a *Subsultus Tendinum*, and a Redness of the Eyes, there is a Presumption of a true *Phrenitis*; then Wine, and other hot Medicines, aggravate the Symptoms; at which Times Blisters do the greatest Service. But in the ordinary *Stupor*, and sunk Pulse, they are not so efficacious as *Sinapisms* applied to the Soles of the Feet.

When the Distemper is over, or changes its Shape, and the parotid Glands are suppurated, they are to be opened as soon as they contain Matter, without waiting for an apparent Fluctuation, or even Softness of the Tumor; for before the Incision, the Pus is so viscid, as to feel as hard as if there was no Suppuration begun.

When

When the Fever is over, the common Complaint is a Want of Rest, a *Vertigo*, a Deafness, and other nervous Symptoms, the Consequence of great Lowness. The Remedies are, the *Pil. Matthæi* at Night, with *Analeptics*, and Medicines of the strengthening Kind. When the Pulse is slow, about ten Grains of *Asa Fœtida*, twice a Day, has a good Effect; but if there is any Appearance of an hectic Fever from an inward Abscess, the Case is to be treated accordingly.

If the Patient falls into an intermittent Fever, the *Bark* is a sure Remedy. PRINGLE.

After all, there is a more compendious Method of treating Fevers of this Kind, which I am surprized Physicians have not been more frequent in the Use of, I mean antimonial Remedies, whose *Effluvia* are of such prodigious Efficacy, that a single Scruple of *Crocus Metallorum* will vomit Thousands of Persons; I know, that great Danger has been objected, especially as to the Dose, but in desperate Cases, this ought to be of no Weight; and there are Preparations of Antimony, which may be managed with as great Certainty as any other Medicine whatever. I have been led to this Way of Thinking, from the Advantage of Dr. James's Powders in Fevers of this Kind; the Virtue of which, I am fully persuaded, does not consist in the Evacuations alone, but in changing the Acrimony into a *Tertium quid*, and thereby rendering it fit to be expelled from the Body. I have had the strongest Proof of its Success upon these Occasions. Besides, it is well known, that the learned Body of Physicians at *Edinburgh* have taken a Preparation of Antimony into their Dispensatory, whose admirable Certainty in the Cure of bloody Fluxes is now sufficiently known. And if Physicians would make Experiments of this Kind, in a cautious Manner, it would serve to wrest the Practice of Physic out of the Hands of Quacks, with whom this opulent City is over-run.

Upon the whole, it will be proper to add what *Hoffmann* asserts, that he has been a Practitioner forty-six Years, and has observed this Fever to go off seldom by a Sweat, or *Hæmorrhage*, but frequently by a *Diarrhœa*, on the seventh, ninth, or eleventh Day, and that there is nothing more pernicious than for a Patient to be troubled with a *Diarrhœa* about the Beginning, or to stop a Flux of the Belly, when it is critical; therefore the Flux is to be promoted on critical Days, from the seventh to the fourteenth, and not before; and that there is nothing worse than Purges, which act by a caustic Quality, even not excepting *Senna*. But *Manna* and Cream of Tartar are beneficial, given in a sufficient Dose.

From

From a Journal of the Writings of most Authors, ancient and modern, who have treated of *malignant Fevers*, it will be a very difficult Matter to form a just Notion of this Disease. The Truth is, they abound with such discordant, and obscure Accounts of it, that all we can make out from them seems to amount to no more, than that the Nature of a malignant Fever may still pass for a Problem unsolved.

Nevertheless, I cannot think it a Matter very extraordinary difficult to form an adequate Notion of it, and to delineate its Character, provided a due Attention be given to the Phenomena which it presents. However absurd the Term *Malignity* may really be, we are yet necessitated to adopt it, or risque the Censure of abolishing a Custom which its Antiquity has rendered respectable; and thus we are continually making a scandalous Use of it, applying it not only to Fevers, accompanied with alarming Symptoms, but even to such as have degenerated through a wrong Treatment. SYDENHAM was not, perhaps, much wide of the Mark, when he pronounced that the Word *Malignity*, as relative to Diseases, had been more fatal to Mankind, than the Invention of Gunpowder. Those who first introduced it, applied it to those Fevers only, wherein Nature seems to be oppressed, and the State of the Pulse and of the Symptoms are not answerable to the Violence of the Disorder; *quasi clancularias vitæ struere insidias*; accordingly we are taught, by daily Experience, that Death comes on in this Kind of Fever, when least expected. It is, however, a mistaken Notion, that *all malignant Fevers* are of this Character. The Progress of some of them is regular and open, without any fallacious Symptoms, as of that denominated *Castrensis vel Hungarica*, and in several others sufficiently manifested by the Degree of the Heat, the Velocity of the Pulse, and the Violence of the Symptoms; and these Fevers ought not to be, as they have been, by some Writers of the first Rank, confounded with the *ardent* Fever, which is of shorter Duration; the *malignant*, however violent, never terminating before the twentieth Day, and almost always later. Add to this, that it is generally epidemic and contagious, like the Pestilence, whence many Writers range both these Diseases under the same Class. LIEUTAUD.

Monro observes, that the *Malignant Fever* begins variously in different Subjects; for the most Part with Cold and Shivering, Pain in the Head, and the other Symptoms commonly described as peculiar to this Fever. In some it begins with a sharp Pain of the Side, or other Parts, attended with acute inflammatory Symptoms; in others it puts on the Appearance

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of the common, low, or nervous Fever, for a Day or two. Blood drawn in the Beginning from some Patients does not seem much altered; from others it throws up a strong inflammatory Buff; and it is likewise a Remark of *Huxham*, that the Blood shall appear buffy or sily in the Beginning of malignant Fevers; and yet drawn two or three Days after shall be quite loose, dissolved, and, as it were, sanious.

The Reason of this Difference of Symptoms in the Beginning, and of these different Appearances of the Blood, seems to be, that such Persons as labour under Pleurisies, low, or other Fevers, being brought to Hospitals or other Places where the malignant Fever is frequent, have their original Disorders changed into this Fever by breathing a foul infected Air, and by their Communication with those ill of the Fever, and of Fluxes: Sometimes a mere Acrimony of the Blood, set in Motion by a supervening Fever, determines the Disorder to be of this Kind; and I have always observed, that those are most apt to catch this Fever, whose Constitutions have been broke down by previous Disorders.

As to the different Forms of this Fever, some have only a Quickness of the Pulse, attended with a slight Head-ach and Sickness, Whiteness of the Tongue and Thirst, and a Lowness and Languor; which continue for a Week or more, and then go off, either insensibly, or with a profuse Sweat, succeeded by a plentiful Sediment in the Urine. Most of those who fall into profuse kindly-warm Sweats, recover, the Sweat carrying off the Fever; such Sweats continue for twelve or twenty-four Hours, and sometimes for two, three, or four Days. In those who have the Fever in this slight Degree, *Petechia* seldom appear; and it is only known to be this Sort of Fever by the other Symptoms, and the malignant Fever being frequent at the same Time in Hospitals, Prisons, &c. *Pringle* very justly observes, that these low Degrees of this Fever are hardly to be characterised, and are only to be discovered in full Hospitals, by observing Men languish; though the Nature of the Illness, for which they are admitted, should seem to admit of a speedier Cure.

For the most Part the Fever appears with more violent Symptoms; the Tongue becomes parched and dry, and more or less of a Delirium invades, attended with the other peculiar and well known Symptoms.

When the *Petechia* appear, they come out on the fourth, fifth, sixth, or seventh Day; seldom after the eleventh or twelfth. *Ramazzini* mentions a Petechial Fever which had been frequent for three Years at *Modena*; in which the *Petechia*

chie appeared only on the fourth or seventh Days; and almost all those died in whom they appeared on the first Day. These Spots came out first on the Neck, the Back, and Breast; and it was observed, that none escaped unless the Spots extended themselves as far as the Nails of the Toes, vanishing by Degrees on the upper Parts. The *Petechiæ* I have observed to appear mostly on the Breast, Back, Arms, and Legs, and sometimes, though rarely, on the Face; either like small distinct Spots of a reddish Colour, or the Skin looks sometimes as if it were marbled, or variegated, as in the Measles, but of a Colour more dull and lurid. As they begin to disappear, they incline to a dun, or brown Colour, and look like so many dirty Spots. I never saw them rise above the Skin, nor ever discerned any miliary Eruptions in this Fever: However, we are not hence to conclude, that miliary Eruptions are never observed in Fevers of this Kind. *Huxham*, *Hasenohrl*, and *Lind*, and many other good Practitioners, mention their having seen them.

Many have no *Petechiæ* through the whole Course of their Disorder; but in those that are very bad, the Countenance looks bloated, and the Eyes reddish, and somewhat inflamed; and though the Skin be commonly dry, yet the Perspiration from the Lungs is very strong. By these Circumstances one may frequently discover that the Patient labours under a malignant Fever, without asking any Questions.

When Persons are seized with a Fever suspected to be of the malignant Kind, our first Care should be to lay them in airy Places, separate, as much as possible, from other People, and keep them extremely clean; put them on a low Diet, and allow as much Barley, or Rice-Water, as they choose to drink, which may be acidulated with *Spir. Vitrioli*.

For the first two or three Days it is seldom to be distinguished with Certainty, that the Fever is of the malignant Kind, even though there be Reason to expect it. The Pain of the Head, the Fullness and Quickness of the Pulse, often leads us to the taking away more or less Blood, which the Patient bears easily, and for the most Part it gives Relief. *Huxham* says, bleeding to some Degree is most commonly requisite, nay, necessary; but then he observes, that the Pulse in these Cases sinks surprizingly after a second Bleeding, and sometimes after the first: And *Pringle* takes Notice, that in the second Stage of the Disorder, large Bleedings have generally proved fatal, by sinking the Pulse, and bringing on a Delirium. I seldom repeat this Evacuation where I suspect a Malignancy in the Fever, unless a pleuritic Stich, an acute Pain of the

Bowels, or some other accidental Symptom requires it; or the Patient is strong, and there be evident Symptoms of Fullness, immediately before I intend giving the Bark; for under other Circumstances, if bleeding was repeated, and other Evacuations used freely, I always observed that it did Harm, and was apt to sink the Patient too much.

After bleeding, if the Patient is costive, or complains of Gripes, I give a Dose of Rhubarb, or Salts, or a laxative Clyster; but where there is much Sickness in the Stomach, I give a gentle Emetic in the Evening, and the Purge the next Morning. *Pringle* advises giving a Vomit, by Way of Prevention, on the first Appearance of the Symptoms, and at Night, to force a Sweat by a Dram of *Theriac*, with ten Grains of *Sal. Volat. C. C.* and some Draughts of Vinegar Whey, and to repeat the same the following Night; and says, he has often seen those Symptoms removed which he apprehended to be Forerunners of this Fever received by Contagion; but previous to Vomits, or Sweats, if the Person be plethoric, it will be necessary to take away some Blood. If, in the Course of the Disorder, the Sickness and Nausea return, attended with Griping and Costiveness, or very foetid loose Stools, I repeat the Rhubarb, &c. and give a gentle Opiate in the Evening, after the Operation.

After Evacuations, if the Pulse keeps up, I commonly give nothing but the saline Draughts, with the *Pul. Contrayerv.* or some temperate Medicine, for the first Day or two. As soon as I can distinguish the Fever to be of the malignant Kind, and that the Pulse rather sinks, I join some of the Cordials with the saline Medicines, and allow the Patient more or less Wine, according to the Degree of the Fever. *De Haen* has found fault with *Pringle* and *Huxham*, for administering cordial Medicines, and Wine, in the low State of this Fever; but nothing has answered so well in all my Practice, as these Remedies under such Circumstances; and I have frequently seen every Symptom changed for the better by their Use; and even when I gave the Bark, in the Manner recommended by *De Haen*, I often found it necessary to join the free Use of Wine, Cordials, and Blisters, in order to support the Patient's Strength. *Petrus a Castro*, in his Account of a petechial Fever, which was frequent at *Verona*, says, that the Sick had a great Thirst, and an Aversion to Meat, but all of them had the strongest Desire to Wine, and were perpetually asking for it; even those who at other Times were very temperate; and that this proceeded from an Instinct of Nature, which wanted something to restore the Strength. *Huxham* tells us, that he cannot

cannot but recommend a generous red Wine, as a most noble, natural, sub-astringent Cordial, and perhaps Art cannot supply a better; and is confident that sometimes at the State, and more frequently in the Decline of putrid Fevers, it is of the highest Service. If the preventive Method does not succeed, *Lind* advises to have Recourse to Blisters, and says, that Sixteen out of Twenty will next Morning be free of the Fever, provided the Source of their Infection be not highly poisonous, or from a violent Contagion.

After reading the Treatises of *De Haen* and *Hasenöhrl* on this Fever, I resolved on giving the Bark in large Quantities, and found it to answer their Recommendation. It is, indeed, long since the Bark has been given in malignant Disorders; though I do not know that any Body gave it in this Fever before these two mentioned Gentlemen, to the Amount of an Ounce per Day. *Ramazini* mentions its having been tried in the petechial Fever of the Years 1692, 3, 4. And in a Treatise on the Plague, published at *Petersburgh*, in 1750, we are told, that in the French Translation of the *Philosophical Transactions* for the Year 1732, it is said, that Mr. *Anyand* informed the Academy of Surgery at *Paris*, that Mr. *Rushworth*, Surgeon, had wrote to Sir *Hans Sloane*, that when he was Surgeon to a Ship in 1694, he had cured some Men ill of the malignant Fever, attended with pestilential Buboës, by Means of the *Peruvian Bark*. *Huxham* has recommended a Tincture of Bark, and *Pringle*, a strong Decoction of it in these malignant Fevers.

There is one thing to be observed with respect to malignant Fevers, which is, that if ever they appear in a large crowded Hospital, unless we can thin the Wards, procure a free Circulation of Air, and keep the Hospital and Sick extremely clean, the Fevers continue to spread, and great Numbers will die; and even the most efficacious Remedies will have little or no Effect: And that when once the Infection is grown strong, it requires the greatest Care, and some Time before it can be entirely got the better of.—And that, if a great Number of Men, ill of this Fever, be kept in the same Ward, they will help to keep up the Infection.

Many Patients, towards the Height of this Fever, sooner or later, have Purgings, which seldom prove critical; and some are seized with the Flux. A gentle Diarrhœa, such as does not sink the Patient, is commonly of Service; but if violent, or a Dysentery comes on, the Case is always dangerous; for whatever stops the Flux increases the Fever; and if the Purgings or Flux continues, it sinks the Patient.

In this Fever it is no uncommon thing for the Patients to vomit Worms, or to pass them by Stool, or to have them come up into their Throat and Mouth, or sometimes in their Nostrils, while they are asleep in Bed, and to pull them out with their Fingers. *Pringle* seems to embrace *Lancisus's* Opinion, and believes that these Worms are not the Cause of the Fever; but being lodged in the Intestines before the Fever comes on, they are annoyed at the Increase of the Heat, and the Corruption of the Humours, and so they begin to move and struggle to get out. This seems evidently to be the Case with many Patients; though in some the Worms seem to give Rise to the Fever, which the bad State of the Patient's Humours, or the infected Air of Hospitals determine to be of this Kind. In many the Fever lessens or goes off entirely soon after, and they are no more affected with Symptoms of Worms. But some, notwithstanding, are subject to frequent Sickness, Pain of the Stomach, and Uneasiness in the Bowels, and discharge some Worms from Time to Time. Others have frequent Relapses into Fevers, which seems to be owing to the Irritation of these Insects.

As soon as I observe a Patient to be troubled with Worms, if his present Situation does not prevent it, I give twenty-five or thirty Grains of Rhubarb, with five or six Grains of Calomel; and if there is much Sickness, I likewise give an Emetic, which, in some Cases, brings up two or three Worms of the round Kind, and gives great Relief. But where the Fever is violent, I am obliged to neglect this Symptom of Worms for the present; and when the Fever is over, if there still remains any Symptom of Worms, I give the purgative Medicine once or oftener, and in the Intervals give the *Pulvis Stanni*, or an Infusion of Camomile Flowers; and in some Cases oily Medicines. By these Means most Patients get well, and recover their Health, and seem freed, at least for the present, from these troublesome Insects; though some continue to complain of Sickness, and other Worm Symptoms, for some Time afterwards.

In malignant Fevers many complain of a Dysury, and some of a Suppression of Urine, especially towards the Decline of the Fever; and others of a Scalding and Pain in making Water, though without any venereal Complaint. Decoctions of Gum Arabic, with some of the *Spir. Nit. dulc.* and oily Mixtures, and Opiates, commonly give immediate Relief, and soon remove the Complaint.

One of the first salutary Symptoms which most generally appears upon those who are recovering, is a Dulness of Hearing,

ing, or Deafness, which comes on about the Height of the Fever, and continues a longer or shorter Time, generally till the Fever is entirely gone, and sometimes for a considerable while afterwards. *Riverius* takes Notice, that according to *Hippocrates's* Doctrine, Deafness is a very dangerous Symptom in the Beginning of acute Disorders, though it be a good Omen, and portends Health, when it does not appear till the Height of Fevers, especially of the malignant Kind; and adds, that he himself has a thousand Times observed, when this Symptom of Deafness came on at the Height (*in Statu*) that those labouring under this Fever have recovered. For the most Part, I do nothing for this Complaint, which goes off as the Patient recovers his Strength. When it continues long, Blisters applied behind the Ears, or on the Neck, and washing the *Meatus auditorius* with an emollient Decoction, wherein a small Quantity of Soap is dissolved, proves of Service.

Swellings of the parotid Glands appear in many Subjects, towards the Decline of the Fever, which come to Suppuration, and prove critical. But although these parotid Swellings are in general so favourable, we are not to imagine that this will always be the Case: For *Riverius*, though he speaks of their proving for the most Part critical; yet he tells us, that in the Year 1623, this Fever was epidemical at *Montpellier*, and that one Half of the Sick died; and particularly, that most of those who had Swellings of the parotid Glands appearing about the ninth or eleventh Day, were carried off within two Days of their Appearance: And, at length, concluding that the Cause of their Death was owing to a greater Quantity of morbid Matter in the Blood than the Part was able to contain, and that Evacuations by bleeding and purging were the only Remedies likely to give Relief, he ordered three Ounces of Blood to be taken from a Patient, notwithstanding he was so low, that the Surgeon was afraid he would have died in the Operation: The Pulse rose on bleeding, and he ordered four Ounces more to be taken in three or four Hours afterwards: The Pulse rose still more, and he ordered a Dose of Sena and Rhubarb to be taken next Day, and the Patient recovered. He adds, that all those who were treated in this Manner, got well.

As soon as these Swellings of the parotid Glands appear, I endeavour to bring them forward to Suppuration, by the Application of emollient Cataplasms, gummous Plaisters, and have them opened as soon as a Fluctuation of Matter is to be felt, and afterwards treat them as common Abscesses. *Riverius* very justly observes, that when such Tumours increase in such a Manner as to endanger Suffocation, they ought to be opened

before they come to Maturation ; and *Pringle* directs not to wait for a Fluctuation of Matter, but to open the Abscess as soon as it can be supposed to have formed.

Sometimes critical Buboes are formed on the Groins and Armpits in this Fever. This Symptom is taken Notice of by Authors, but does not seem to be so frequent as many of them would make us believe. Neither *Huxham* nor *Pringle* mention their having seen such Buboes, and *Lind* says he never saw them till the Beginning of the Year 1763. For my own Part three are all I ever met with, and those in the Groin.

Sometimes the Patients complain towards the Decline of the Fever, of a Pain all along the spermatic Chord, and soon after a Swelling of the Testicle appears : *Hippocrates* takes Notice of this Symptom in some Fevers. By bleeding and applying emollient Fomentations and Cataplasms, and bathing the pained Part on the first Attack with *Spirit. Mindereri*, the Swelling of the Testicle may be prevented ; but if the Swelling be already begun, it will most probably end in a Suppuration of the Scrotum or Testicle, which will heal very kindly.

Many, while recovering from this Fever, are seized with an Ophthalmia, or Inflammation, for the most Part, of one Eye only, sometimes of both. If the Patients are strong, I bleed them, and apply Blisters behind the Ears, and sometimes, when the Pain is great, I lay Poultices of Bread and Milk to the inflamed Eye ; which, with the Assistance of some cooling Physic, commonly removes this Complaint ; though in some obstinate Cases it will be necessary to repeat the Evacuations, apply Leeches to the Temples, and after the acute State of the Disorder is passed, to order the Eye to be washed frequently with the *Collyrium Vitriolicum*, or *Collyrium Saturninum*. However, it should be observed, that if these astringent *Collyria* are used too soon they may do Hurt. If this Ophthalmia is neglected in the Beginning, the Inflammation frequently rises to a great Height ; and leaves an Obscurity, or Film, over the Cornea, an Impediment to the Sight very difficult to remove.

Towards the Decline of these Fevers, and very often during the Course of them, several complain of Pains in their Feet and Toes, some of which end in Mortifications, especially if the Patients lie in cold Places. The best Remedy I have found to be, bathing the Feet in warm Water, or warm Aromatic Fomentations ; and after keeping them for some Time in these warm Liquors, to dry them well, and then rub them up in Flannel : And if any Lividness or Redness appears on the Parts, I give plentifully of the Cortex with Cordials, if

not

not contra-indicated by the other Symptoms. If Vesicles arise on the Part, and a Gangrene is formed, I direct the Part to be scarified, and proper Dressings, with warm Aromatic Fomentations, and Cataplasms to be used.

Patients reduced very low by this Fever, especially after frequent Relapses, are subjects to cedematous Swellings chiefly of the Feet, towards Evening, after sitting up all Day, which generally go off as the Sick recover their Strength; but in some they continue obstinate, and extend towards the Thighs, and even all over the Body.

When such Swellings, are recent, and confined to the Feet and Legs, commonly the Bark, joined to the lixivial Salts, or the *Oxymel Scillitic*. and a Purgative once or twice a Week, removes them: An Infusion of Horse Radish has likewise a good Effect.

When the Swellings are so obstinate as to resist the Force of all internal Remedies; Punctures made in the Feet, or lower Part of the Legs, are of great Benefit, by furnishing a Drain to the Water; and Blisters applied to the Legs. If the Punctures were made before the Patient's Strength was exhausted, and he laboured under no other Disorder, I never observed any bad Effects from them: But in Cases of great Weakness, especially if combined with a hectic Fever, or Purging, and the cedematous Swellings are large, a Gangrene and Death are most Times the Consequence.

Putrid malignant Fevers, attended with Eruptions, are taken Notice of by *Hippocrates* and other ancient Authors: But whether they meant that particular Sort of Eruption which we now call *Petechiæ*, is uncertain, as their Descriptions are not clear enough to distinguish them from the Miliary and other Kinds. But since about the Year 1500, we have had many accurate Accounts of Fevers of this Kind, which have appeared in different Parts of the World. From all which it appears, that such Fevers take their Rise, either from some antecedent Acrimony of the Blood, or, what is more frequently, from some Source of Corruption or Contagion; from the Use of putrescent animal Food, and a Want of fresh Vegetables and acescent Liquors; from the putrid Steams of corrupting animal Substances; from the moist putrid Vapour of low marshy Places in Summer, where there is stagnating Water, which corrupts by Heat; from the foul Air of crowded Hospitals, Gaols, and Ships, or any such like Causes.

When once this Fever is begun, it is observed to be of a contagious Nature, and, if proper Care is not taken, to affect those who attend the Sick, or who live in the same Room, or breathe the same Air with them.

Of

Of the PESTILENTIAL FEVER.

A Pestilential Fever is a most acute one, arising from a poisonous *Miasma*, brought from Eastern Countries; and unless it is immediately expelled out of the Body by the Strength of the vital Motions, by Buboes and Carbuncles, it is fatal.

It differs from other contagious, malignant, and eruptive Fevers, because it is the most acute, for it sometimes kills on the first, and sometimes on the second Day. Besides, in our Climate, it is not epidemic nor sporadic, from a bad Way of Living, or unhealthful Air, but happens when it is most salutary, from Contagion alone. There is something very singular in this infectious *Miasma*; for though it is apt to spread at a strange rate, yet it will abate by intense Cold, and be plainly extinguished; wherefore in a cold Season, and very cold Countries, it either does not appear at all, or in a very mild Degree; whereas, if the Climate is hot, it is not only most vehement, but most common.

In this, as in all other contagious Diseases, the venomous *Miasma* is swallowed up with the Air, and insinuates itself into the *salival* Juice, where its Tragedy is first acted; whence it assaults the Head, Brain, Nerves, and Animal Spirits, producing a *Torpor* in the Head, a Heaviness, a Sleepiness, a violent Pain, a Stupor of the Senses, a Forgetfulness, Inquietude, Watching, and Loss of Strength. From the *Fauces* it proceeds to the Stomach, creating Loathing of Food, *Nausea*, Anxiety of the *Præcordia*, a *Cardialgia*, attended with Fainting, reaching to vomit, and Vomiting itself. Hence it proceeds to the Membranes of the Spinal Marrow, and the Coats of the Arteries, producing Horrors, a languid, small, contracted, quick Pulse, and even Fainting. All which are generally Signs and Symptoms of the Plague, which are of a more violent and quick Operation, in Proportion to the Virulence of the pestilential *Miasma*.

Thucydides, in his Account of the *Peloponnesian* War, has given us a Description of the *Attic* Pestilence. This Year, says he, was acknowledged to be free from all other Diseases, for if any one was ill of any other Disorder, he immediately fell into this. Some at first complained of extraordinary Heats in the Head, Redness, and Inflammations of the Eyes, and of the internal Parts; the *Fauces* and Tongue were immediately bloody; the Breathing difficult and very offensive; to these succeeded Sneezing and Hoarseness, laborious Breathing, and a violent Cough. If it reached the Heart, it quite oppressed it; the
Stools

Stools were bilious, with great Weakness. To many there happened a Hiccup, and violent Convulsions, which lasted with some a long while. The Body outwardly was not very hot to the Touch, nor pale, but reddish, livid, abounding with Pustules and Ulcers. The internal Parts were so exceeding hot, that they could not bear even a Sheet upon them; some threw themselves into cold Water, or into Wells, and had an inexhaustable Thirst; some had a perpetual Watchfulness, yet the Body did not waste away. Some died on the seventh and ninth Days of internal Heat, while there was some Strength yet remaining; but if they escaped, the Disease removed into the Belly, with Ulcerations, and an immoderate *Diarrhæa*; many died of mere Weakness. Though in the Beginning the Seat of the Disease was chiefly in the Head, yet it pervaded the whole Body; if they escaped the former, great Disorders would happen in the extreme Parts. Many of these escaped, and some with losing their Eyes. Some likewise were seized with a Forgetfulness of all Things, and neither knew themselves nor their Friends. Many perished out of mere Negligence, but some were cured. Yet there was no Remedy found out which was constantly useful. It was a miserable thing to see the Dejection of Mind which Patients fell into as soon as they were taken ill, for they often ran into Despair.

All Plagues are not of the same Nature, but vary according to different Constitutions and Circumstances. Those who have written of the Plague universally agree, that spongy and porous Bodies, of an obese Habit, of a sanguine and phlegmatico-sanguine Constitution, Women, young Persons, and Children, Persons of a timid Disposition, that are poor, live hard, or are given to Luxury, and sit up late at Nights, are more apt to be afflicted with this Disease, than the strong and intrepid, lean, nervous, indued with large Vessels, Men, old Persons, obnoxious to the *hæmorrhoidal* Flux, and who have Issues, and open Ulcers. Nothing brings on this Distemper more than Fear, Dread of Death, and a Consternation of the Mind. HOFFMANN.

Pestilential Fevers are so called, when the Patient falls into sudden Weakness, for it is a Kind of malignant Fever, attended with more grievous Symptoms; the Patients die in a short Time; that is, in two, three, or four Days, and sometimes sooner. If malignant Fevers arise in War-Time among the Soldiers, they are called Camp-Fevers; in *Hungary*, an *Hungaric* Fever. But the Plague, or Pestilence, is known when Buboes and Carbuncles arise in various Parts of the Body. The Sweating Sickness had its Rise in *England*, in which the Patient fell into a violent Sweat, of which many died in a Day's Time.

The

The *Hungaric* Fever is of a peculiar, malignant Kind, and happens in Time of War, with a sudden Loss of Strength, a most violent Pain in the Head, an Inflammation, Burning, Blackness, and Dryness of the Tongue and *Fauces*. HEISTER.

The pestilential Poison disturbs all the Functions of the Body; for unless it be expelled to the external Parts, it is certainly fatal. Nor is this to be done, as in other Fevers, by large Sweats, by Stools, by a Flux of Urine, by customary Evacuations of Blood, or by bleeding at the Nose, either natural or artificial, for they rather hasten Destruction. The salutary and critical Excretion which perfectly solves the pestilential Disease, is by Tumours in the Surface of the Body, not otherwise than the *Erysipelas*, between the third and fourth Day, and the sooner the better, for then the Symptoms are mitigated. That there is Poison contained in these Tumours, appears from hence; that if the Surgeon opens any of the Tumours with his Lancet, and then bleeds a sound Man, he will be immediately seized with the Plague. The pestilential Tumours are of two Kinds; the first arises in glandulous Parts, most commonly in the Groin and Armpits, sometimes in the parotid and mammary Glands, as also the lower Maxillary, under the Chin, and in those near the *Aspera Arteria*. It is a hard, painful, tense Swelling of the Glands, with great Heat, and if they are salutary, being swoln, they grow soft, and suppurate. The other Sort is the *Anthrax*, or Carbuncle; *Celsus* describes it in this Manner: It is a Swelling on which there are Pustules, which rise but little; they are black, sometimes sublivid, or pale. In this there seems to be a *Sanies*; it is black underneath. The Body itself is more dry, and harder than usual. There is as it were a Crust about it, surrounded with an Inflammation; nor can the Skin be raised up in the Part, but is joined to the Flesh underneath. *Mindererus*, who was present at the Plague, says, that a Carbuncle is of the Size of a Grain of Mustard-seed, and about its Edge there is a Circle, or burning *Halo*, of a large Size. The Flesh which it seizes is like an *Eschar*, or putrid Flesh, and falls off as if torn out by a Wolf. No Part of the Body is free from these Carbuncles, but they generally lay hold of the Membranes of the Muscles, and the nervous and fibrous Substance of the Skin, especially in the Back, Arms, and Thighs. At first there is an exquisite Itching in the Part, which when scratched, Pustules arise; they are of a red, livid, or whitish purple Colour, or sometimes black. When the Pustules are pressed, they seem to be full of Pus, under which there is an Ash-coloured Crust, which being taken away, the Flesh appears corrupted and spongy,

spongy, with intolerable Pain and burning of the circumjacent Flesh, which is followed by a Mortification of the Part.

When the Plague is fatal, some die of a Fainting the first or second Day, doubtless of a panic Dread. But in many, when the Poison is not expelled, or, if expelled, returns back, it brings on a Mortification of the nervous Coats of the noble Parts, of the *Pleura*, *Oesophagus*, Stomach, and Intestines, or the *Meninges* of the Brain, which creeps speedily to all the *Viscera*, and the Blood itself; whence the Carcases swell, and have a most intolerable Stench. Sometimes, when the pestilential Tumours are too plentiful, they die of a Symptomatic Fever, from the Inflammation, Pain, and intolerable Heat, not otherwise than in the Small-Pox.

It has been before remarked, that the Plague is not a Native of our Country, but is brought from remote Places; whence the best Preservative is to fly to a distant Country; for the same Reason, those Princes best consult the Welfare of their Subjects, who, in the Time of the Plague, endeavour to prevent the spreading of the Infection; and when a Family is afflicted, separate the Well from the Sick, and burn all the Moveables. While this Disease reigns, all Persons should live temperately, avoid an Excess in the Use of the Non-naturals, and abstain particularly from violent Affections of the Mind, and every thing else that dejects the Strength, disturbs Perspiration, and generates Crudities in the *Primæ Viæ*; the Mind is especially to be supported, and Fear, Dread, and Pusillanimity, are to be banished; for more die of Terror, than of the Plague itself. HOFF.

Mead is rightly of Opinion, that the Poison of the Plague is of foreign Original; though I am not ignorant, that Attempts have lately been made to prove the contrary; Attempts which clash with all Experience, and contradict the Histories of this Disease, both ancient and modern. *Mead* thinks that the Plague has a great Similitude with the Small-Pox, they being both contagious Fevers from *Africa*, and both attended with certain Eruptions. The critical Tumours in the Plague are very different; in the most favourable Case, the morbid Matter is thrown upon some of the softest Glands near the Surface of the Body, as upon the inguinal, axillary, parotid or maxillary Glands; the first Appearance of which is a small Induration, great Heat, Redness, and sharp Pain near those Glands. Those Tumours, if the Patient recover, like the Pustules of the distinct Small-pox, come to a just Suppuration, and thereby discharge the Disease.

In worse Cases of the Distemper, either instead of these Tumours, or together with them, Carbuncles are raised. The first

first Appearance of them is a very small, indurated Tumour, not situate near any of the forementioned Glands, with a dusky Redness, violent Heat, vast Pain, and a blackish Spot in the Middle of the Tumour; this Spot is the Beginning of a Gangrene, which spreads itself more and more, as the Tumour increases.

These Distempers have yet a more manifest Likeness; for those livid and black Spots which are frequent in the Plague, are the Signs of speedy Death, and the same are sometimes found to attend the Small-pox, with as fatal a Consequence; nay, I have seen Cases, when almost every Pustule has taken this Appearance. In both Diseases, when eminently malignant, Blood is sometimes voided by the Mouth, by Urine, or the like. And we may farther add, that in both, Death is usually caused by Mortifications in the *Viscera*. This has constantly been found in the Plague, by the Physicians in *France*.

As in the Small-pox, the Management consists in clearing the *Primæ Viæ* in the Beginning, in regulating the Fever, and in promoting the natural Discharges; so in the Plague, the same Indications will take place. In the Plague, indeed, the Fever is often much more acute; the Stomach and Bowels are sometimes inflamed, and the Eruptions require external Application, which to the Pustules of the Small-pox are not necessary.

When the Fever is very acute, a cool Regimen is necessary, but when the Pulse is languid, and the Heat not excessive, moderate Cordials must be used. The most gentle Emetics may be given; the best is *Ipecacuanha*, if the Stomach or Bowels are not inflamed, for then certain Death must be expected; therefore it is safest to consider, if any Inflammation has seized these Parts, for then Vomits must be omitted.

As for the Eruptions they must be brought to a Suppuration as soon as possible; as soon as they appear, fix a Cupping-Glass thereon, without Scarification; and when that is removed, apply a suppurating Cataplasm, or Plaister of warm *Gums*.

If the Tumours will not suppurate, as the Carbuncle seldom or never does; yet if a thin *Ichor*, or Matter, exsudes through the Pores, or if the Tumour feels soft to the Touch; or, lastly, if it has a black Crust upon it, then it must be opened by Incision, either according to the Length of the Tumour, or by a crucial Section. If there is any Part mortified, as is usual in the Carbuncle, it must be scarified. Then it will be necessary to stop the Bleeding, and dry up the Moisture

ture with an actual Cautery, dressing the Wound afterwards with *Doffils* and *Pledgits*, spread with a common Digestive, made with *Terebinth. cum Vitell. Ov.* and dipt in a Mixture of two Parts of warmed Oil of Turpentine, and one Part of *Sp. Sal. Ammon.* or in *Bals. Terebinth.* and over all must be put a Cataplasim of *Theriac. Lond.*

The next Day the Wound ought to be well bathed with a Fomentation of warm aromatic Plants, with Spirit of Wine in it, in order, if possible, to make it digest, by which the *Sloughs* will separate. After this, the Ulcer may be treated as one from a common Abscess. Farther, in the glandular Tumours, when they suppurate, we ought not to wait till the Matter has made its Way to the outer Skin, but to open them as soon they are risen to any Bigness; because these Tumours begin deep in the Gland, and often mortify before the Suppuration has reached the Skin, as the Physicians in *France* have found, upon dissecting many dead Bodies.

But the Patient runs great Hazard in this Way, notwithstanding the utmost Care; therefore artificial Discharges for the corrupt Humours should be attempted. To this Purpose, large Bleeding and profuse Sweating are recommended unto us upon some Experience.

Sydenham has tried both with good Success, but observes they ought not to be attempted, unless in the Beginning of the Sicknes, and that we cannot expect any prosperous Event from either of these Evacuations, unless they are very copious.

In *France*, on the first Day, they bled about twelve Ounces, and then four or five Ounces every two Hours after. This, they pretend, had extraordinary Success, with the assistance only of cooling *Ptisans*, and such like Drinks, which they gave plentifully at the same Time. The Bleeding must certainly be more liberal in this Case than in any other, yet Experience is the best Master. But where can be the Hazard, if the Patient must die without it?

As for Sweating, as *Sydenham* advises, it must be continued without Intermission; his Manner is as follows;

1. R. *Theriac. Androm.* ℥ss. *Elect. de Ov.* ℥j. *Pulv. è Chel. Cancr. comp. gr.* xij. *Coccinel. gr.* viii. *Croc. gr.* iv. *cum. q. f. Succ. Kermes. F. Bolus, quem sumat sexta quaque Hora, superbibendo Coch. vj. seq. Julap.*
2. R. *Card. Benedict. & Scord. compos. an.* ℥iv. *Aq. Theriacal. stillat.* ℥ij. *Syr. Caryophyl.* ℥j. *M. f. Julapium.*

If

If there is a Vomiting, the Medicine must be deferred, and the Patient should be made to sweat, with the Weight of the Bedcloaths alone, drawing the Sheet up to his Face.

When the Sweat is begun, it should be promoted with Sage Posset-drink, or Small-beer, in which Mace has been boiled, repeating them pretty often, for twenty-four Hours; in the mean while, the Spirits of the Patient are to be kept up with comforting Broths. The By-standers should forbear to wipe off the Sweat, nor should the Patient change his Linen all that Time, which is a necessary Caution; if it be stopped before that Time, it will be to no Manner of Purpose; during the Sweat, the *Diarrhœa*, if any, and the Vomiting will stop of their own accord. SYDENHAM.

I shall only add, that *Theriaca*, and the like solid Medicines, being offensive to the Stomach, are not the most proper Sudorifics. I should rather recommend an Infusion of *Virginia Snake-Root*, in boiling Water, or, for want of this, of some other warm Aromatic, with the Addition of about a fourth Part of *Aqua Theriacalis*, from which, in an Illness of the same Kind with the Goal Fever, which approaches the nearest to the Pestilence, I have seen very good Effects. MEAD.

Those who are obliged to be near the Sick, must take care that the *Miasmata* do not approach their vital Juices, nor yet the salival. To this Purpose, I would recommend frequent Spitting, and washing the Mouth with Vinegar, or Wine, or snuffing them up the Nose. The Efficacy will be still greater, if they are imbuted with *Rue*, or *Citron Rind*; for an Acid is the genuine Antidote of a putrid and sulphureous *Miasmata*. Wherefore it is much safer to hold Acids in the Mouth, than *Alexipharmic* Roots. It will be likewise proper to get a few Spoonfuls of *Rhenish* Wine, or *Bezoardic* Vinegar, diluted with Water, or Wine, and so take them. The *Turks* deal much in the Juice of Lemons.

Externally, many recommend the Use of Issues, because the Matter of the *Miasma* is wont to adhere to the serous Parts of the Blood, and to be brought by the Strength of Nature to the Place where the Issue is made, as is evident from an unusual Pain and Tumour; besides the Advantage arising from Expectoration.

When the Plague is actually begun, and the Body is costive, a gentle Clyster should be used. Then a Sweat should be promoted, (twenty-four Hours at least,) that the Poison may exhale and pass through the Skin; and *Epithems* to the Heart will not be without Benefit, though they reach only to the right Orifice of the Stomach, and its nervous Coats; they may

may be made of *Theriac*. expressed Oil of Nutmegs, Camphire, Saffron, Castor, and Balsam of *Peru*. *Langius* recommends Bleeding after Sweating, which may be of use. But above all, Acids are highly praised, such as Juice of Citrons, *Seville* Oranges, Lemons, Vinegar, &c. which resist Poison, Putrefaction, and prevent the Dissolution of the Blood.

When the Strength of the Disease is vanquished, gentle Laxatives will be proper to expel the *Sordes*, during the Course of this Disease. The Writers on the Plague advise Cupping-glasses, with Scarification and Blisters, in pestilential Tumors. *Riverius* would have *Cantharides*, with Yeast and Vinegar, put behind the Ears, and the usual Emunctories; and says, the Patient should afterwards lie in Bed for twenty-four Hours, to promote the Efflux of the black, serous, and pestilent Humour, by Sweat. Nor should the Ulcers be soon healed, as *Langius* advises, but the Swellings should be soon opened, and cleansed by the usual Digestives.

It is worthy Observation, that few Medicines are best; for which Reason People of the lower Class generally come off better than Persons of Distinction; and there is nothing worse than to give *Alexipharmics* abounding with a hot, volatile Oil; much less ought volatile Spirits to be given, for they fix the Poison upon the nervous Parts. Yet Herbs and Roots of this Kind are not altogether to be condemned, if mixed with Acids and Nitre; and I have been well informed, that a Mixture of *Cardus Benedictus* Water, and Wine Vinegar, if given to four Spoonfuls, with a Dram of *Crabs Eyes* and *Theriaca*, and repeated, were very useful in the Plague at *Hall*, in 1682. In the Plague likewise in *Lombardy*, 1526, many recovered by the Juice of *Goats-Rue*, Vinegar, Water of *Cardus Benedictus*, and a little *Theriac*. given to make the Patient sweat. And *Thoner* observes, that nothing was of any Advantage in the Plague except *Theriacal* Vinegar given in the Beginning to promote a Sweat. And in the Year 1544, when a malignant Fever raged among the Soldiers, a whole Regiment was saved, to whom this Vinegar was given in due Time, except a very few, as I have been well informed. And in the Plague at *Rome*, Vinegar with *Rue*, *Pimpernel* Root, *Betony*, *Garlick*, and *Juniper-Berries*, with a little Camphire added to the Infusion, caused many to escape. Likewise the Preservative Water of *Sylvius* has been greatly esteemed, because of the Vinegar. And *Mindererus* asserts, that unless Alexiterials be given within twenty-four Hours, all Medicines are vain.

All Physicians who have wrote on the Plague, recommend Acids, and earthy Medicines. *Fracastorius* prescribes thus:

3. R.

R. Succ. Acetosel. ℥ij. Citr. ℥j. Confect. Fracast. ℥j. Spec.
Cordial. ℥ij. Aceti ℥j.

Mindererus affirms, that there is no Putrefaction, Infection, or Depravation of the Humours that Acids will not vanquish, and if Vitriolic Medicines were forbid, he would never attempt to cure the Plague. *Crato*, and many others, speak in the Praise of Spirit of Vitriol; and he affirms he has given it, not only with Syrups, but Conserve of Roses, with a happy Event. Among the earthy Remedies, Diaphoretic *Antimony*, *Bezoardic Mineral*, *Crabs Eyes*, burnt Hartshorn, Amber, *Terra Sigillat. Armenian Bole*, and *Cinnabar*, are the chief. The next Class are *Analeptics*, for the Physician should endeavour to raise the Spirits of the Patient, by proper Exhortations, and the following Medicines;

4. R. Meliss. Turc. M. iv. Rosar. cum Sale contusar. Flor.
Lilior. corval. an. M. j. Cort. Citr. recent. ℥iss. Cinnam. ℥j.
Macis ℥ss. affunde Vini Rhenan. ℔ij. Aqua commun. ℔vj.
et cum leni Igne abstrahere ℔ivss.

This Water given with the same Quantity of *Carduus Benedictus Water*, is a proper Vehicle for all other Remedies, and may be given alone, or with Syrup of *Sorrel* or *Orange-Juice*, and acidulated with Spirit of Salt.

It will be always best to expel the Poison as quick as possible, which may be done by Vomit, as soon as the Patient is infected and feels a Faintness, with a *Cardialgia*, to which, if a Sweat be subjoined, it will, as it were, destroy the Disease in the Bud, in this as well as other Diseases. *Riverius*, as soon as the Person was infected, put a Feather in the Patient's Throat, caused him to vomit, then put him to Bed, and threw him into a Sweat with Broth. *Riverius* likewise affirms, that he was ill of the Plague himself, and caused to be taken away some Ounces of Blood, which being repeated, had cured many. However, it is not to be administered immediately after the Invasion, but on the third Day, if there is a *Plethora*, and the Strength permits.

As to nitrous Medicines, if the Body is plethoric, the Temperament choleric, or *sanguineo-choleric*, the Heat great, the Fever intense, with Thirst, and Pain of the Head, *Nitre* may be given in a small Dose, with bezoardic Powders: But when there is a *Torpor*, and Sleepiness, a weak Pulse, Coldness of the Extremities, and great Fear, *Nitre* is hurtful. It is always safest if given with Camphire, and is not only an *Alexipharmic*, but resists Inflammations. A Surgeon at *London*, who was at the Plague of *Vienna*, told me, that he used a Black Electuary with Success, compounded of *Rob of Elder* and Honey, of each half a Pound.

a Pound, Gunpowder an Ounce, and Camphire a Dram; the Dose was a Dram or two.

It is a good Sign when Buboes break out quickly, and soon grow ripe; but if they return, Death is to be feared. The most dangerous Kind are behind the Ears; the worst are attended with Carbuncles, and a livid Circle. Carbuncles are worse than Buboes, and if they are great and black, and near the Heart, they are most dangerous. The best Remedies are Sudorifics, which force the Humours to the Surface of the Body. Externally, Cupping-glasses are useful to draw out the Buboes, as well as Blisters. If they are protuberant, a Suppuration is to be promoted with a Poullice of Figs, white Lily Roots, and Onions roasted under Embers, with the Meal of Linseed, Honey, and Saffron, or simple *Diachylon*, or with the Gums. When they are suppurated and opened, they are to be cleansed with Balsam of *Arcaeus* mixt with *Basilicon*. Carbuncles are not to be suppurated, but treated with Digestives, that the Crust may fall off, and then with the *Egyptian* Ointment. But if they increase and mortify, they must be scarified, and dressed with four Ounces of Spirit of Wine, two Drams of Camphire, one Dram of Saffron, and as much artificial Nitre, made of urinous *Sal Ammoniac* and Spirit of Nitre, which will dissolve in Spirit of Wine.

Last of all, too great a Heat of the Bed and Room are to be carefully shunned, as well as too much Cold. In general, every thing should be temperate, and free from all Extremes. HOFFMANN.

Diemerbroeck observes, that those who are seized with this Distemper at the New and Full Moon, are in greatest Danger of their Lives.

Several have observed, that all Soap-boilers, and Venders of it, all the Washer-women, and all those whose Business it was to use Soap, nay, those who only wore Shirts washed with Soap, presently died of the Plague.

Freind observes, that in the Sweating Sickness, the primary and principal Indication of Cure was to promote a free Sweating, and to maintain it with proper Supports, as long as the Distemper lasted; for by whatever Means the Perspiration was diminished, interrupted, or suppressed, the certain Consequence was Death. The Sweats were promoted by sudorific Medicines, and the Addition of Bed-cloaths, and the Strength was supported with Wine and Cordials. But though this Distemper rose to its Height in fifteen Hours, yet the Danger was not over before full twenty-four Hours. In some, the Sweating was repeated, otherwise they fell into Fevers of an ill Kind. All Drinkables

were prohibited for the first five Hours; on the seventh the Distemper increased, at which Time the Delirium came on. The Patient was not allowed to sleep, nor to eat Flesh-meat. The concomitant Symptoms were an inward Heat and Burning, and unquenchable Thirst, Sickness of the Stomach and about the Heart, vomiting seldom, Head-ach, Delirium, and then a Languor, a heavy Sleepiness, and a quick and hasty Pulse, with a short and laborious Respiration.

It is beyond Dispute, that the Plague appears in a different Manner in different Countries, and differently in the same Country, in different Years: The Fever in some Years proving more violent, and having some Symptoms different from what it has in other Years, I take for granted, must be the Reason of the remarkable Difference that appears in the Remarks of the most celebrated Authors who have written on this Subject.

There is one extraordinary Symptom, which most of these Authors mention, though none of them prove it, or pretend to have seen it; which seems to be inconsistent and incompatible with the animal Œconomy; making still proper Allowance for Omnipotence and divine Vengeance, as in that of *Sennacherib's* numerous Army; and many other such Plagues mentioned in Scripture. What I mean, is, that a Person may die of the Plague instantaneously, or in a few Hours, or the same Day, that he receives the Infection. In *Turkey* it is well known, that all such as have the Plague, conceal it as much as they can, and walk about as long as possible. And I presume it must be the same in all Countries, for the same Reason, which is, the Fear of being abandoned and left alone; and so, when they struggle for many Days against it, and at last tumble down in the Street, and die suddenly, People imagine, that they were then only infected, and that they died instantly of the Infection; though it may be supposed, according to the Rules of the Animal Œconomy, that the noxious Effluvia must have been for some Time mixed with the Blood before they could produce a Fever, and afterwards that Corruption and Putrefaction in the Blood and other Fluids, at last stops their Circulation, and the Patient dies. Thus, a *Greek*, who, in 1752, spoke to the *British* Envoy's Master of the Horse at his Window, at *Constantinople*, went and died in an Hour afterwards in a Vineyard; and it was said he died suddenly, though it was very well known to many that he had the Plague upon him for many Days. A Sailor of Capt. *Hill's*, infected in *Candy*, in 1736, was a Fortnight in his Passage to *Smyrna*, yet he was five Days in the Hospital there before

before he died. Mr. Lisle's Gardener was indisposed twelve Days before he took to his Bed, and he lay in Bed eight Days before he died, in July 1745.

It is true *Thucydides*, in his Account of the Plague of *Athens*, relates, that some were said to die suddenly of it; which may have led others into the same Way of thinking: But *Thucydides* must be allowed to have known very little of the Animal Œconomy, being no Physician; and he owns, moreover, that when the Plague first attacked the *Piræus*, they were so much Strangers to it at *Athens*, that they imagined the *Lacedæmonians*, who then besieged them, had poisoned their Wells, and that such was the Cause of their Death. Besides, he pretends to affirm, from the little Experience he had of the Plague, that the same Person cannot have it twice, which is absolutely false. The Greek *Padre*, who took Care of the Greek Hospital at *Smyrna* for fifty Years, assured me, that he had had the Plague twelve different Times in that Interval; and it is very certain that he died of it in 1736. *Mons. Brossard* had it in the Year 1745, when he returned from *France*; and it is very well known, that he and all his Family died of it in April 1762. The *Abbé*, who takes Care of the *Frank* Hospital at *Piræa*, declared to me, on Oath, that he has had it already, here and at *Smyrna*, four different Times. But what is still more extraordinary, is, that a young Woman, who had it in September last, with its utmost pathognomonic Symptoms, as Buboes and Carbuncles after a Fever, had it again on the 11th of April, and died of it some Days ago, while there is not the least Surmise of any Accident in or about *Constantinople* since December, this only one excepted: But there died four Persons in the same House in September; and as the House was never well cleansed, and this young Woman always lived in it, she was at last attacked a second Time, and died.

The only Antecedents I could observe to this Malady was a great Murrain among the Black Cattle in May, 1745, and in the Beginning of June the same Year, Swarms of Butterflies, and great Numbers of Caterpillars, and afterwards a violent Plague; which I predicted in 1752, as also, from similar Forerunners, another in 1758, in the Months of August and September.

The Plague is now more frequent in the *Levant* than when I came first into this Country, about thirty Years ago; then they were almost Strangers to it in *Aleppo* and *Tripoli* of *Syria*, and it seldom appeared at *Smyrna*; now they have it frequently at *Aleppo*, and Summer and Winter at *Smyrna*, though never so violently in the Winter, which must be owing

to the great Communication by Commerce over all the *Levant*, and more extended into the Country Villages, than it used to be.

I take the Plague to be an Infection communicated by Contact from one Body to another, the subtle Miasmata and volatile Steams entering the cutaneous Pores of sound Persons within their Reach, or mixing with the Air which they take into their Lungs, and so, advancing by the *Vasa inhalantia*, mix with the Blood and Animal Fluids, whose Motion and Velocity they encrease by their noxious and active Qualities, and in some Days produce a Fever.

Some are of Opinion, that the Air must be infected, and that it is the principal Cause of these Plagues; whereas, I presume that the ambient Air is not otherwise concerned, than as the Vehicle which conveys the venomous Particles from one Body to another, at least in such Plagues as I have seen hitherto at *Smyrna* and *Constantinople*; allowing always, that the different Constitution of the Air contributes very much to propagate the Plague, hot Air rendering the venomous Steams more volatile and active, and Cold contracting and dulling them. A Person in the Plague may be said to have a contagious and poisonous Air in his Room and about him, while, at the same Time, the open Air is free from any dangerous Exhalations; so that I never was afraid to go into any large House wherein a plagued Person lived, provided he was confined to one Room.

The pestilential Fever shews itself by Chilliness and Shiverings, even in the warmest Months, so very like the first Approaches of an Ague, as no Ways to be distinguished from them at first Sight. This cold Fit is soon accompanied with a Nausea, and Desire of Vomiting; when the Patient discharges a vast Quantity of bilious Matter, with great Uneasiness and Oppression of the Mouth of the Stomach, attended sometimes with a dry Cough. Next he has a violent Head-ach and Giddiness, with some slight convulsive Motions; breathes hard; his Breath and Sweat stink; his Eyes are ruddy, and he looks frightened, sad, and pale; his Thirst insatiable, Tongue yellowish, with a red Border; he has a total Loss of Appetite, Restlessness, great inward Heat, more than could be expected from the Fever, which is sometimes pretty moderate, but grows stronger frequently towards Night: He often bleeds at the Nose. In this dismal Condition he continues some Days, till the venomous Matter begins to be separated, in some Measure, from the Blood, and discharges itself critically at the Surface, by the Eruptions of Buboës, Carbuncles, Blains, petechial Spots, and some small Vesicles or Blisters: But all these Symptoms are not to be looked for in the same Person. When these Eruptions appear,

appear, and grow sensibly, the Patient finds himself somewhat relieved from his great Oppression. Some, in the above State, have a very violent Fever, sometimes attended with Delirium and Phrenzy; others are stupid, sleepy, and complain of nothing. Such as are furious and delirious seldom live so long as the sleepy and stupid; but if they hold out till the Eruptions push plentifully, and then the Phrenzy abates, they may more probably recover than the Sleepy with a moderate Fever.

In *Turkey*, neither Air nor Diet produce the Plague, though both contribute very much to its Progress and Violence, when brought from any other infected Place. It generally rages most in *August* and *September*, when the Diet of the poorest Inhabitants, who suffer most by the Plague, consists of untimely Fruits, as Cucumbers, Gourds, Melons, Grapes, &c.

The Plague breaks out here and at *Smyrna* some Years, when there is no tracing from whence it is conveyed. Most likely from Houses before infected, and not well cleansed afterwards: But Plagues of this Kind seldom spread, and are never so fatal as those which come from Abroad.

As to the Cure of this Disease, some are for Bleeding; though in this Country it is reckoned infallible Death to open a Vein, and Phlebotomy is never used. But I am of Opinion, that a Medium between these might prove more to the Purpose; for, as it is an inflammatory Disease, Bleeding and Emetics might be of Use in the Beginning, especially if the Fever is very hot, with a Delirium, or violent Head-ach; but after there begins a Separation of the morbid Matter, shewn by Eruptions, Bleeding and Purging must prove prejudicial; yet, gentle Vomits might, even then, be allowed, as they might drive out the Eruptions more powerfully than Nature could do it without their Help. As the pestilential Fever has many Remissions, I judge that the Use of the Bark might be of great Service, and so it proved to be, *Anno 1752*, to the *French Ambassador's* Servant, to whom I sent it, with Directions, by *Padre Joseph*; and he alone recovered of all who were taken ill in that Village.

The Practice in the Hospital is thus: When a Person is suspected, they give him a large Dose of Brandy, with a Dram of *Venice Treacle*, covering him well that he may sweat. The first three Days he eats nothing but Vermicelli boiled in Water, with a little Lemon Juice. On the fourth he has Rice and Water; which Diet they observe strictly to the fifteenth or twentieth Day, and then they allow him very thin Chicken Broth, his whole Drink, from first to last, is only warm Water.

They apply first to the Buboes and Parotids a Pultice of Mallowa and Hoga-lard; and after they are ripe and open, they dress with *Unguent. Basilic.* To the Carbuncles they apply Carmat and Sugar for some Days, to cool them; when they begin to separate they apply a Digestive of thin Turpentine with the Yolk of an Egg. They put nothing to the Blains or petechial Spots. They give no other Medicine, except a little Bezoar to the Rich; nor can they be persuaded to change their Method.

I think Antiphlogistics should be used before the Eruptions, and Alexipharmics and Antiseptics afterwards, more particularly Camphire; and some Doses of the Bark in the Remissions; and Blisters must be of great Use to the stupid and sleepy.

I hold the best Preservative to be removing from infected Persons Houses, and to keep at a Distance from them for many Days.

Some think that Fire preserves from the Plague, from whom I differ; having observed that Cooks, &c. who are always near the Fire, suffer the most. Fire gives Energy to the Effluvia lodged about them, which otherwise might dissipate in the Air; and as hot Weather propagates the Plague, Fire should do the same, more or less.

The next best Preservative I take to be Moderation, and Food of easy Digestion, of a balsamic Quality, fit to produce rich generous Blood: Likewise to guard against all dismal Thoughts and Apprehensions. MACKENZIE.



Of FEBRILE INFECTION.

THE Words *Infection* and *Contagion* are too commonly understood under the alarming Notion of a Plague, a pestilential or malignant Fever. But those Terms are here used in no such limited Sense, though with an extensive Meaning to all Fevers, of whatever Kind, that are imparted from one Person to another, either by a near Approach to each other, or by Means of such Substances, as have imbibed Particles by which a Fever may be communicated and spread.

It is necessary also to obviate another vulgar Error that prevails. Nothing is more common than to hear a Fever, or other Distemper, pronounced to be free from any infectious Disposition, and the Attack of it upon a few attributed to very different Causes; because the Person himself, who judges in this Manner, has had the good Fortune to escape, as some
others

others may have done, who were equally exposed to the Infection.

As there is no Remedy, though the most sovereign in the World, which does not sometimes fail of Success, even in Cases where, seemingly, it is well adapted; so there is no Contagion, so far as I think, yet known, that does affect all Mankind indiscriminately. Inoculation for the Small-pox sometimes fails to produce that Disease, and yet no one questions its being contagious. I never found in myself the least Symptom of an Infection, though for several Years I have daily attended People labouring under contagious Maladies. It does not thence follow, that the Hospital Fevers, during those Times, were not infectious, as there are the most positive Proofs of the contrary.

An infectious Malady is not, therefore, always a Calamity which spreads itself to every Person that approaches; the Plague itself is not altogether of such a Nature. Is is not, therefore, a Distemper, which, in certain Circumstances, is, or may be, communicated to one, two, or more Persons, and that, for the most Part, in its identical Form, and peculiar Nature, which must be suitable to the Habits and Dispositions of the Persons who received it? What these Dispositions are is not the Question at present. It may suffice, that I illustrate and confirm my Meaning by a late Incident.

In a Word, where there were eighteen Marines, five of them were seized with a severe Flux, being infected by two Seamen who were warded with them. Among 592 Patients, then in the House, there was no where heard this Complaint, but in that Ward. The five Marines became, themselves, sensible how they got the Distemper, though thirteen, in a parallel Situation, were never in the least affected by it.

In acute Ailments, we judge the Stools, more especially if very fetid, to be the most communicative of a Taint; next to those the Breath, and, lastly, the Effluvia from Patients in Fevers.

As to the Method of treating a Person who has received this Infection from a Fever, the Manner ought to be altogether similar, whether the Infection be acquired from a slighter or a greater Taint; and that it should be practised also in all Cases of Relapses.

The Effect of Contagion is often sudden, and, at the same Time, sensible. The slightest Degree is from the bad Smell of Patients labouring under offensive Diseases. Such slight Degrees of Infection I have often observed to be derived from Patients of a gross Habit of Body, when labouring under inflammatory Distempers, and even other Complaints.

Some have received such an Infection from assisting in putting dead Bodies into the Coffins; and likewise Nurses by Persons in the Small-pox. Shiverings, Sickness, and Head-ach are the usual proclaiming Symptoms: Vomits and Blisters soon re-instate them; seldom one proving mortal where the Patient was properly treated.

Those infected by Patients in contagious Fevers, generally compare the first Impression to an earthy disagreeable Scent, received into the Stomach, as from a Grave newly opened, but not quite so raw as the cadaverous Stench; the Effects of which, Shivering and Sickness, are instantaneous. This is a particular Smell, hardly to be described: Some compare it to that of rotten Straw; others to the disagreeably affecting Scent from the confluent Small-pox at their Turn, though it is not so strong.

But many are not sensible of any effects from this Poison at first. An Infection from a Fever will sometimes continue about a Person for many Days, nay Weeks, discovering itself chiefly by irregular Shiverings, and those sometimes so severe, as to oblige the Patients to have recourse to their Beds once a Day; sometimes every other Day.

It is also found, that in Fevers thus contracted, the Patients are very subject to Relapses: In an infected Place, whether House, Chamber, or Ship, where the Seeds of Contagion are harboured, frequent Relapses into Fevers, even to the sixth or seventh Time, are not unusual, and may be justly ascribed to the Influence of the Contagion.

Qu. Do not these same Causes, which occasion Relapses, sometimes give Motion to the morbid Effluvia, before received into the Body, and enable them to produce such Effects, as otherwise probably might not have appeared? I am the rather of this Opinion, because, as I said before, the Effects of the communicated Mischief from bad Fevers are often very quick, and sensible to some, immediately at the Time the Poison is received. But if a Person perceives no Symptom of an Infection, till many Days after having left the Place of its Abode, and is first taken ill of it immediately after having been wet with Rain, exposed to Cold or Damp, or been guilty of Intemperance and Excesses, it is probable, that these Causes have excited this dormant Poison into Action; and none can positively affirm, that without their Influence it would have ever affected the Constitution.

The Coldness felt, at first, over the Body, the Shiverings, with slight Sickness at the Stomach, tend to confirm the mistaken Opinion, that these are only the common Symptoms of
a Cold,

a Cold, or sudden Chill; or what the Vulgar term an Ague: yet, this is the critical Time for the Advice of a Physician, as improper Treatment, or the Delay of a few Hours, may produce Effects beyond the Power of Medicine to remove.

To all who are supposed to be infected by Fevers, during this State of Rigors, a gentle Vomit is immediately to be exhibited, before the Fever be formed, and before the Fulness or Hardness of the Pulse renders its Operation dangerous. If the Vomit be delayed too long, and especially if bleeding must precede it, the most certain and favourable Opportunity of procuring Safety for the Patient is past.

The Effects of this Antidote are so well known, and have been so fully ascertained by repeated Experience, that those who are employed in Fever Wards, as soon as taken sick, have immediate Recourse thereto. I have found it equally serviceable in preventing Relapses, when given immediately at the Return of the Shiverings. I should add, that a loose Stool or too should at this Time be procured, either by the Emetic or Clysters.

The Vomit may generally be very gentle, seldom exceeding from six to ten Grains of *Ipecacuanha*. The Patient should afterwards, when put to bed, take a sweating and quieting Draught, containing five Grains of *Sal C. C.* and from fifteen to twenty Drops of *Tinct. Theb.* Sometimes five Grains of Camphire have been given every four Hours, with large Draughts of Vinegar-Whey.

But if the Head next Morning be not altogether free from Pain, or the Fever is still to be apprehended, something more must be done.

It should always be remembered, in Cases of Infection, to pursue the most quick and vigorous Methods possible; as in the first Hours, and afterwards Days, of this Fever, less must be trusted to Nature, than in any other Distemper. At this Period, no Confidence should be put in Alexipharmic, or sweating Medicines; *Mithridate*, *Theriaca*, &c. never to be used in Cases of imminent Danger, till after proper Evacu-ations.

If the aforesaid Symptoms of a Fever remain after the Administration of the Vomit, Clysters, &c. or should the Exhibition of an Emetic have been altogether neglected, or too long delayed; or the Patient injudiciously treated with sweating Medicines, and bleeding, where the Proof of Infection is evident, Recourse must be speedily had to Blisters, to be applied to the Back, if the Head or Limbs are affected, and to the Breast, should the Malady have seized that Part.

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I do not know a surer Mark of a prevailing infectious Fever, than this: If twenty Patients to whom it has been communicated, be blistered at Night, about sixteen of them shall next Morning be entirely free from Heat. This, however, is meant only of such Infections whose Source is not highly poisonous; nor can I affirm that such salutary Effects will always be produced while the Patient continues in an infected Place, or within the Sphere of its Activity.

How far those Means would operate towards the expelling the Small-pox Venom as soon as admitted, or, perhaps, in some other infectious Fevers, that have not occurred in my Practice, I do not know: But this I will venture to assert, that in the worst Infections I ever was witness to, the Method prescribed has had better Effects, than any Manner of Treatment recommended by the Authors I have read on this Subject, or any that I have had Opportunity of trying myself: And in Relapses, where I have had the most frequent Cases for a fair Trial, I have been fully satisfied of its beneficial Effects.

Much has been said against the promiscuous Use of Blisters, and their early Application in Fevers: And indeed, in Fevers truly inflammatory, and some other Cases, I have known bad Effects proceed from them.—But, what I and others have frequently reflected on with Astonishment, very seldom in Ship Fevers, there is felt such a State of the Pulse as to forbid their Use. What some mechanical Writers in Physic have advanced concerning the Theory of blistering Applications, or their acting as *Stimuli*, and so always raising and encreasing the Fever, is not applicable to the most of those Fevers of which I treat, where, according to the Nurse's Phrase, the Patient generally receives a *Cool* from the Blister.

When the Infection, by these Means, has been removed twenty-four or thirty-six Hours after the Application of the Blisters, the intestinal Canal should a second Time be gently cleansed, by giving Rhubarb, with a small Quantity of vitriolated Tartar.

I have remarked already, that some Persons who have once been infected, though they were speedily relieved by a Vomit and Blistering, yet afterwards became, for some Time, sickly, and afflicted with irregular Complaints. This happened chiefly in weak Constitutions, to hysterical Women, and in very malignant Taints.

As to the Appearances after Death, in such as have died of contagious Fevers;—in the few I have opened, very large Col-

Collections of *Matter* were generally found in some Parts of the Body.

I conjecture, that the great and experienced Benefit derived from the very early Application of Blisters, flows from so many Ulcerations and Vesicles being timely provided for the complete Discharge of those purulent and tainted Particles, by which they and the Infection are freely discharged from the Body.

It is an Observation of the best practical Writers, that Issues and Setons are most excellent Preservatives against receiving an Infection; nay, even that of the Plague itself: And the most hopeful Crisis in the Plague, and in most pestilential Fevers, happens when Nature excites Tumors kindly suppurating, by whose beneficial and plentiful Discharges the deadly Poison is expelled from the Constitution.

Infection, this dreadful Source of Disease, is not confined to Armies or Fleets, in Ships or in Prisons; but it elsewhere, in Places often unsuspected, exerts its malignant Influences.

When a Nurse, or when two or three Persons in the same Family, are seized with a similar Fever; Cold, Fatigue, or Grief are solely blamed, or the like Causes, which strongly dispose the Constitution to receive and animate the Taint; when such Diseases (as I have known) attack a Boarding-school of Boys or Girls, the fatal Distress is often ascribed to Causes which are not in the least accessory.

When Spots are observed to rise above the Surface of the Skin, the Fever, by some, may be supposed Miliary, and free from any Danger of being communicated. But, in contagious Fevers, those elevated Spots are very common. In the malignant Fever which prevailed among the *French* Prisoners in *Winchester* Castle, where the Contagion was very mortal in the Beginning of the Year 1761, I remarked the Spots were, on most of the Patients, elevated, and of the miliary Kind.

I have thus offered a few Thoughts on a Subject, which it is to be wished was more universally studied and known. The Particles of Contagion are, for the most Part, of so subtle a Nature, as seldom to fall under the Inspection of our Senses; whence in this, as in other Subjects so abstruse, there is a large Field open for Dissentions. Men, indeed, of the greatest Learning have frequently disagreed in their Opinions concerning the real or possible Existence of an Infection from many Distempers; of which the *Yellow Fever* in the *West-Indies* furnishes a striking Instance. Not many Years since, this Fever became an Object of Consideration before the Lords Commissioners of Trade and Plantations; where it was urged, as a Reason

Reason for not removing the Seat of Government and Justice in *Jamaica*, from *Spanish Town*, to *Kingston*, that there was Danger from the *Greenwich Hospital*, situated near *Kingston*, of an Infection from the Yellow Fever being frequently communicated to that Town. The Opinion of a Physician was taken, who had long practised in that Island; and by him it was judicially and clearly given, that, from the Yellow Fever in *Jamaica*, there was no Infection; and the same was likewise the Opinion of other skilful Physicians.

On the other hand, our *American Colonies* are under great Apprehensions of the Importation of a Yellow Fever, in Goods and Ships from the *West Indies*; by which they have often suffered.—And it is but a few Years since, when a Gentleman dying of a Yellow Fever at *Barbadoes*, his Wearing Apparel and Linen, packed up in a Chest, were sent to his Friends at *Philadelphia*; where, upon opening the Chest, the Family was taken ill; and the Cloaths being hung abroad to be aired, they presently diffused the Contagion of this Yellow Fever over that Town, of which two hundred Persons died.

The vulgar Appellations given to Fevers do sometimes disclose to us very little of their Nature and true Disposition; and thus much is certain, that from the same Infection, I have known to proceed what might be termed, the Yellow, Petechial, and Miliary Fevers; and while the Contagion, in a few, assumed an intermitting Form, and was mild, in others it raged with a constant Fever.

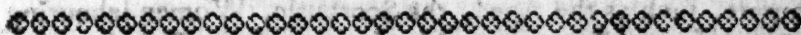
Many Countries and Cities, in all human Probability, might have escaped the dreadful Scourge of the Pestilence, by taking, on its first and most early Appearance, the proper Measures of separating the Sick from the Suspected, though in Health; and shutting both separately up, with proper Officers and necessary Attendants, from all others; and carefully tracing the imported or generated Poison, wherever lodged, that the infectious Atoms might be effectually destroyed, by the judicious Application of Fire and Smoke. But the Incredulity of some has been so great as to deny a Contagion to be in the Plague itself at its first breaking forth; because no Marks of Contagion were found on the Dead Bodies. However, that this has proved a fatal Mistake, is well known to such as are conversant with the Histories of the different Plagues in *Europe*.

The Phenomena, even in the most manifest Contagion, are often wonderfully mysterious, and altogether unaccountable. Thus the Small-pox has been for Ages, and continues to be, the Terror and Destroyer of a great Part of Mankind: But from what Origin, or how, was this Poison first engendered?

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dered? The *Europeans* have carried it to almost all Parts of the World, though not a *Marine* might have been infected with it in a whole Voyage. This *Venom* has been conveyed in an old Blanket to Nations of *Indians*, some of whom it has almost extirpated.

Further, the specific Nature and Qualities of such Poisons are likewise various from each other, and in many Respects inscrutable. How far does each extend its proper Sphere of Activity? Who will undertake to assign an irrefragable, or a plain Reason, why the Small-pox will infect Persons but once during the Period of their Lives; while the Plague, and other Infections, attack the Constitution again and again? There are unquestionably Limits prescribed to human Researches, beyond which, though Fancy may take its Flight, and Theory make wide Excursions, all is Conjecture, Obscurity, or profound Darkness. LIND.



Of the MILIARY FEVER.

A *Miliary Fever* is not unlike a *Catarrhal*, and is attended with a more intense Motion of the vascular and nervous System, whereby a *corrupt lymphatic Matter*, of a peculiar Nature, is expelled from the inward, and more especially the nervous Parts, to the Surface of the Skin, in the Form of small, rough, miliary Pustules, sometimes red, and sometimes white.

These small Pustules are exceeding numerous, causing a Corrugation, Roughness, and Dryness of the Skin, and have a fetid Smell peculiar to themselves. There is no Eruption so inconstant as this, for it will sometimes strike in suddenly, and as suddenly appear again; and is attended with an itching, pricking Sensation more than any other Kind. Other Eruptions are common to all Countries, and are equally vexatious to Men as well as Women; but the *Miliary* seems familiar or endemic to some Places only, and more frequently attacks the female Sex, especially in Childbed. It is neither *epidemic* nor *contagious*, and seems rather owing to a Fault in the *Viscera* and *Fluids*, than the Intemperature of the Air.

The miliary Eruptions are either *red* or *white*, and are both more or less acute, benign or malignant. The *red* are less dangerous, are generally free from a Fever, and then are *chronical*, appearing at stated Seasons of the Year; but sometimes they are accompanied with an acute Fever. The *white* seldom or never

ver appear without a Fever, and therefore are more dangerous. In these the *Lympha* is affected with a Kind of an Acidity; for the Patient discharges Plenty of *Serum* by Sweat, Urine, Stool, or Salivation, which are the Effects of an Acid which coagulates the thicker Part of the Blood, and separates the *Serum* from it. Besides, all Kinds of *Acids* and *Refrigerants*, not excepting *Nitre* freely taken, are most hurtful in this Disease. On the contrary, *Absorbents* and *Anti-Acids*, and Things which render the Blood spirituous, are most salutary. Women who eat much Fruit, and such like Trash, of the acescent Kind, and live idle, sedentary Lives, are most subject to this Disease; add to this, that those who have died of it, have had a great deal of grumous Blood in the large Vessels, and in the Cavities of the Heart.

The red Sort proceeds from a sharp, salino-sulphureous Serum, which is manifest from the Heat and Itching of the Skin in this, more than the *White*. Therefore those whose Blood is impure, such as the Aged, the Scorbutic, Women labouring under a Suppression of the Menses, or Men afflicted with a Stoppage of the periodical Bleeding Piles; or who are fond of salt Meats, gross Malt Liquors, or smoke much Tobacco, together with a lax Habit of Body, and who lead an idle, inactive Life, are most subject to this Disease. It is found by Experience, that temperate Remedies, which obtund the *saline Spicula*, are most efficacious against this sort. Whereas heating, volatile Medicines, which induce a Commotion in the Blood, are known to increase the Disorder.

Sometimes the *miliary Eruptions* are *idiopathic*, and sometimes *symptomatic*, and supervene to other Fevers, especially the Continual, when on the Decline. They likewise appear very commonly with the Measles, Small-pox, putrid and spotted Fevers, when drawing towards an End, and then they raise a new Fever, whose Attack the debilitated Patient is not able to stand. When they appear in the Beginning of acute Fevers, particularly the Small-pox and Measles, they forebode no happy Event.

The *Idiopathic* begins with a slight Shivering, succeeded with Heat and Loss of Strength, sometimes even to Fainting. There is a Straitness about the Breast, attended with Anxiety and deep Sighs, Restlessness and Watching; at least the Sleep is very unquiet and disturbed. There is a pricking Kind of a Heat perceived in the Back, with an alternate Succession of Cold, Shivering, and Heat under the Skin, but most sensible in the Palms of the Hands. Women in Child-bed have the Flux of the *Lochia* stopped, and the Milk recedes from their Breasts. To these succeeds a Roughness of the Skin like that of a Goose, and

and a great Number of Pustules appear, sometimes white and sometimes red, or both together, of the Size of *Millet* (or *Mustard*) Seed. They first belet the Neck, then the Breast and Back, and afterwards the Arms and Hands. When these begin to rise on the Surface of the Skin, the more grievous Symptoms cease. The Pulse, which before was hard, contracted, and quick, grows more soft, free, and slow; the Dejection of Mind goes off, the Skin becomes moist, and the Belly, which was bound so much that the Patient could not break Wind, now spontaneously admits him to go to Stool. Afterwards the Pustules ripen, and are full of a stinking *Ichor*. The Urine appears more saturated, and a singular fetid Sweat, proper to this Disease, breaks forth; the Flux of the *Lochia* in Females returns, and within the Space of seven or eight Days the Pustules disappear, with great Itching in the extreme Parts, drying up and falling off in Scales. Then the Patient recovers Strength, and regains Health.

Sometimes the Pustules appear on the third or fourth Day, sometimes on the seventh, and sometimes not till the fourteenth. HOFFMAN.

This Disease frequently attacks *Childbed Women*. At first the Pustules are full of a limpid Serum, then it is a little yellowish, or of a Pearl Colour. This Fever is *simple* when the Pustules appear alone; and *compound* when there are red papillary ones mixt with the white; those, when they break out by themselves, are commonly called a *Rash*.

There are colic, nephritic, pleuritic, rheumatic, and false Labour-Pains often attending this Fever; as also an Oppression of the Breast, a Sinking of the Spirits, and a Hurry in the Head, as often as the Patient composes herself for Sleep, with a frequent weak Pulse.

It is hard to determine the Day of the Eruption of the Pustules; but, as far as I have been able to observe, it is the tenth or eleventh Day from the Beginning, if the Fever makes a regular Progress; sometimes on the eighteenth, and sometimes on the twenty-first or twenty-second Day.

If a *Diarrhœa* attends this Fever in *Childbed-Women*, it is a dangerous Symptom, because it prevents the Flux of the *Lochia*. HAMILTON.

Doubtful Signs are, when the Pulse continues hard and full, after the Pustules are come out; when there is no Sleep, great Inquietude and Difficulty of Breathing; when there is a profuse Sweat during the whole Progress of the Disease, or a continual Desire of making Water, or when the Urine, being thick and coloured, suddenly becomes limpid, thin and pale;

as also when there is Gripping and Looseness, especially in Childbed-Women.

Bad Signs are, when the *miliary Pustules* appear and vanish by Turns, and the Symptoms continue violent; but it is worse if they quite disappear: Hence an Oppression of the Breast, with Sighs, a Straitness of the *Fauces*, Loss of Strength, and great Anxiety.

Fatal Signs are, when the morbid Matter not being thrown out again, there is an inward Heat, and the extreme Parts are affected with Cold and Shivering, and there is a cold, profuse Sweat; or, on the contrary, when the extreme Parts are hot, and a notable Sense of Coldness is perceived in the *Abdomen*, then the Patient dies in a fainting Fit, arising from a Mortification of the Stomach, Intestines, Brain or Womb.

The Cure of this Fever depends on the following Things:

1. To correct and temperate the acrid morbid Matter which disturbs the nervous Parts. 2. To relax the spastic Strictures of the nervous Fibres proceeding from thence. 3. To evacuate the prepared morbid Matter through the Pores of the Skin, and prevent its striking in.

To dilute the Sharpness of the Humours, and to appease the Irritation of the nervous Parts, the following Decoction may serve for common Drink:

1. *Rasur. C. Cervi, Rad. Scorzon. Sarsaparill. an. ℥ij. Aq. commun. ℥vj. F. Decoctum.*

Let the Patient be always kept in an equal moderate Heat, and abstain from strong Alexipharmics, and Things actually hot, because they throw him into too profuse a Sweat. But when there is an Apprehension of the Pustules striking in, then the Decoction may be drank hot, with moderate *Expellents*, as the Exigence requires. Nor should the Medicines be too cooling, because they increase the Anxiety and Faintness. In the *red Sort*, when there is an internal Heat, with Thirst and a great Pulse, Diaphoretics with a little Nitre will be proper; even though *red* and *white Pustules* appear together. But *Nitre* alone should be used with Caution, especially when there are Signs of Malignity. No Malt Liquor should be drank, but the former, or rather the following Decoction:

2. *R. Rad. Scorzon. Rasur. C. Cervi, an. ℥ij. Sarsaparill. ℥ij. Rad. Cichor. ℥j. Sem. Fœnicul. ℥ij. F. Species, quarum ℥iss. ex sex Libris Aquæ, cum hordei mundati manipulo per tres ferme horæ quadrantes decoquantur.*

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The Belly should be neither too much bound nor too open, yet even the gentle Laxatives are not to be given till the Pustules begin to dry; and then there is nothing else required but an *emollient Clyster*.

Bleeding should be cautiously used, for when the Weakness is excessive, the Sweats profuse, and the Pulse quick, it must be omitted. On the contrary, it is necessary for Childbed-Women, when the *Lochia* are suppressed, and the Symptoms of a Miliary Fever begin to appear; but then it must be done speedily, and the great Anxiety, Fainting, and Difficulty of Breathing will cease, and the Pustules break out.

The Patient must not rise out of Bed, nor continue long in an erect Posture, for Fear of Fainting, and striking the Pustules in. Analeptic Mixtures should be given to raise the Spirits, composed of the following, or the like Ingredients: *Aqua Melissæ citrat. Lilior. Convall. Flor. Acaciæ, Rubi Idæi cum Spir. Nitr. dulc. et Syrup. Succ. Citri.* To which may be added, as Circumstances require, gentle Diaphoretics, as *Cornu Cerv. Philosoph. ppt. and Antimon. Diaphoret.* In colliquative Sweats, Citron Juice, and *Species de Hyacinth.* may be added.

Blisters on the Back are very proper for this Disease, for they help to draw off the impure serous Humours, and stimulate the fatigued nervous Fibres to a Contraction, so as to expel the morbid Matter. When the Eruption is slow, and the Motion of the Humours is turned to the inward Parts, particularly the Head, a Blister applied to the Calves of the Legs has been often found very serviceable. HOFFMAN.

Hamilton used to prescribe the following Bolus:

3. R. *Sperm. Cet. Pulv. è Chel. Cancror. comp. an. ʒj. Croc. gr. v. Syr. Paralys. q. s. M. f. Bolus, sexta quaque Hora sumendus.*

He looked upon *Diaphoretic Antimony* as a noble Medicine to promote the Eruption of the *Miliary Pustules*, and to take off a *Delirium*. The Dose is a Scruple every sixth Hour.

Albrecht, Professor of Medicine at *Gottingen*, praises *Camphire* for bringing out the Pustules, when struck in, and attended with dangerous Symptoms, which he gave in the following Manner:

4. R. *Succin. Alb. ppt. gr. xij. Nitri gr. vj. Camphar. gr. iv. M. f. Pulvis, quarta quaque Hora sumendus.*

Mead affirms, that the Patient should lose Blood in the Beginning of this Disease, let the Pustules be of what Kind soever; and yet declares soon after, that the more sparingly

Blood is drawn, the more happily will the Disease generally terminate. However, if the Patient is in a Sweat, it must either be omitted entirely, or put off for a Day or two.

He thinks the Endeavours of Nature to expel the morbid Matter through the Skin, ought to be assisted with moderately Cordial Medicines, such as the *Bezoardic Powder*, the *compound Powder of Contrayerva*, and the *Cordial Confection*; adding *Nitre* in Case of an Inflammation.

The following History taken from the *Commercium Literarium* for 1735, may give farther Light into this Disease. An *Epidemical Miliary Fever* raged at *Strasbourg*, in *November*, *December*, and *January*, of the Year 1734 and 1735, with and without *Spots*, which made terrible Havock among Men of robust Constitutions, all Remedies having been tried in vain. They were seized in an Instant with Shivering, Yawning, and Stretching, and Pains in the Back, succeeded by a most intense Heat, and at the same Time there was a Loss of Strength and Appetite. On the seventh or ninth Day the Miliary Eruptions appeared, or Spots like Flea-bites; with great Anxiety, a *Delirium*, Restlessness and Tossing in Bed. Bleeding was fatal. While Matters were in this unhappy Situation, a Midwife, of her own accord, gave to a Patient, in the Height of the Disease, a Clyster of *Rain Water* and *Butter* without Salt, and for his ordinary Drink, a Quart of Spring-Water, half a Pint of generous Wine, the Juice of one Lemon, and six Ounces of the whitest Sugar, gently boiled till a Scum arose, and this with great Success, for the Belly was soon loosened, the grievous Symptoms vanished, the Patient was restored to his Senses, and snatched from the Jaws of Death. Other Experiments were tried with the like Effect. The Author concludes from hence, that this Disease may be happily cured, if a temperate Regimen be observed; if no strong Alexipharmics be given, but rather cooling Things; if Bleeding be shunned; and if in the Eruption of the Pustules, or Spots, as well as after, lenient Clysters be exhibited.

XX

Of the SCARLET FEVER.

THE *Scarlet Fever* may happen at any Season of the Year, but it appears most commonly towards Autumn. It reigns chiefly among Children: It begins with Coldness and Shivering, as in other Fevers, without any violent Sickness. Afterwards the Skin is covered with *red Spots*, which are larger, more

more florid, and not so uniform as the Measles. The Redness remains two or three Days, and then disappears; then the Cuticle falls off, and leaves behind it a Sort of mealy Scales scattered over the Body, which appear and disappear two or three Times.

Let the Patient abstain from Flesh, all hot Cordials, and spirituous Liquors: Let him not go out of Doors, nor be confined constantly to his Bed, and then Medicines will be of little Use:

1. R. C. C. *ussi Pulv. è Chel. Cancror. comp. an. ʒss. Coccin. gr. ij. Sacchar. Crystall. ʒj. M. f. Pulvis subtiliss. in xii. Chartulas dividend.* one of which may be taken every sixth Hour, drinking two or three Spoonfuls of the following Julep after it:

2. R. *Aq. Alexeter. simp. ʒvj. Syr. è Succ. Limon. ʒj. M. f. Julep.* Or,

3. R. *Pulv. Contrayerv. compos. ʒj. Sal. ʒss. Croc. gr. iij. M.* Or the *Pulv. Contrayerv.* may be given alone without the *Saffron.*

Apply a Blistering-Plaister to the Neck, and every Night give a Purgative of *Diacodium*; and after the Fever ceases, let the Patient be purged with a very gentle Cathartic, agreeable to the Age and Constitution. SYDENHAM.

There is often Occasion for more Blisters than one; and if the Fever is violent, there will be no Danger in lenient and emollient Clysters.

Of the MEASLES.

THE MEASLES are an *eruptive Catarrhal Fever*, generally epidemic, which by the increased vital Motion of the Heart and Arteries throws on the Skin an acrid, caustic, inflammatory Matter, chiefly from the inward nervous Parts, in the Form of red Spots. They begin with Chillness and Shivering, and Heat and Cold succeed by Turns. The next Day the Fever comes on, with great Sickness, Thirst, and Loss of Appetite; the Tongue is white, but not dry. There is a little Cough, a Heaviness of the Head and Eyes, and a continual Sleepiness. There is a Sneezing and a Swelling of the Eye-lids, a serous Humour oft distils from the Nose and Eyes, which are certain Signs the Eruption is at hand. In the Face the Spots are

small, but on the Breast broad and red, not rising above the Surface of the Skin. The Patient often has a Looseness with greenish Stools.

These Symptoms continue and increase till the *fourth*, sometimes the *fifth* Day, at which Time Spots like Flea-bites appear, increasing in Number and Magnitude, and in some Places run together, rendering the Face variously spotted. These Spots consist of very small red Pimples, almost contiguous, and rising but a little above the Skin. They may be felt by a gentle Touch of the Finger, but the Rising cannot easily be discerned by the naked Eye.

From the Face the Spots gradually proceed to the Breast, Belly, Thighs, and Legs. The Symptoms do not immediately vanish after the Eruption, as in the Small-Pox, except the Vomiting. The Cough and Fever increase, with Difficulty of Breathing. The Weakness, and a Defluxion on the Eyes, Sleepiness, and Want of Appetite still continue.

On the *sixth* Day, and sometimes sooner, the Skin of the Face and Forehead begins to grow rough, and the Cuticle breaking, the Pustules die away; while on the rest of the Body the Spots are broad and red. On the *eighth* Day the Spots disappear in the Face, and are scarce perceivable elsewhere; on the *ninth* they quite vanish; fine, thin, light Scales, like Flour, falling off from the Skin at that Time. SYDENHAM.

The Measles in general are not dangerous, unless from an insalubrious epidemical Constitution of the Year, which sometimes renders them malignant. This may be known by a sudden Loss of Strength, Coldness of the extreme Parts, great Restlessness, Vomiting, Difficulty of Swallowing, and a *Delirium*. If petechial Spots, or miliary Eruptions supervene, there is great Danger. A continual Cough, a Looseness, and great Inquietude are bad. Profuse Sweats are no good Sign. When the Disease is ended, if the Cough and Hoarseness remain, a *Consumption* and *Hætic* will follow, without speedy Assistance.

Those who die of the Measles are generally suffocated on the ninth Day. Some, when the Disease is ended, have a Looseness, which continues several Weeks, and brings on a mortal *Tubes*: Some have a slow Fever, with an Atrophy and a Swelling of the *Abdomen*, which are fatal.

If Children are suspected to abound with Crudities in *Primis Viis*, it will be proper to evacuate with half a Grain of *Tartar Emetic*, and Syrup of *Succory* with *Rhubarb*. When there are Worms, *Athelmintics* should be given. In Adults abounding with Blood, Phlebotomy is necessary on the first Days. Medicines

cines too hot, and cold nitrous Things, are equally hurtful. As soon as the Eruption is ended, a gentle Cathartic is proper.

In a *Cough* nothing is better than Oil of Almonds fresh drawn, mixt with Syrup of *Capillaire*; half a Spoonful of which should be given often in Water-gruel.

To absorbent and diaphoretic Powders, half a Grain of *Saffron* may be added.

When this Disease attacks Women who are subject to *hypochondriac* or *hysterick Spasms*, or when the menstrual Flux is at hand, it is often attended with fainting Fits, Difficulty of Breathing, with Constrictions of the Throat, and great Anxiety of the *Præcordia*. Therefore the Eruptions are not to be driven out with hot Remedies, but rather with such Things as allay Spasms, paregoric and carminative Clysters; sometimes Bleeding, as also a little Castor and Nitre mixt with Bezoardic Powders. By these Means the Spots will appear in a short Time.

When a *Diarrhœa* happens it must be cautiously treated, and not hastily stopt; because it carries off a great deal of Filth, and often puts an End to the Disease. Then it will be best to wash the Acrimony of the Intestines by demulcent Clysters. But if, when the Disease is over, the *Diarrhœa* continues obstinate, it will be proper to add a few Grains of the Bark of *Eleutheria*, with Bezoardic Powders.

When there are *Hæmorrhages*, which are generally Signs of Malignity, nothing must be used that is directly astringent, much less Opiates and Anodynes. I have made use of the following Mixture with Success:

1. R. *Aq. Florum Acaciæ, Sambuc. Tiliæ an. ʒij. Theriacal, ʒiij. Antimon. Diaphoret. Diastord. Fracastor. an. ʒss. Spir. Vitriol. gut. xx. Syr. Papav. Rhæad. ʒij. M. f. Mistura.*

If the Patient falls into too profuse a Sweat, so that the Linen is quite wet, it must be changed very cautiously for such as is well aired and warm, otherwise the Spots will strike in. Many have been killed in a few Hours, by a sudden Change from hot to cold.

When the Spots are gone, the Patients should not expose themselves to the Air; but be careful of their Diet, otherwise they may fall into an *Asthma*, suffocating Catarrh, or Consumption.

Sydenham, for the Cough, orders the following Things:

2. R. *Decoct. pectoral. Hb. Syr. Violar. et Capil. Ven. an. ʒiss. M. f. apozem. cap. ʒiij. vel iv. ter vel quater in die.*
3. R. *Ol. Amygd. dulc. ʒij. Syr. Violar. et Cap. Ven. an. ʒj.*

Sacchar. Cand. alb. q. s. M. f. Eclegma, de quo sæpius lambat quando tussis urget.

4. R. *Aq. Alexeter. simp. ʒiij. Syr. de Maccon. ʒj. M. f. Haustus.*

This is to be given every Night, from the first Onset of the Disease, till the Patient recovers, increasing or diminishing the Dose according to his Age.

Let the Patient keep his Bed for two Days after the first Eruption.

If after the Measles disappear, a Difficulty of Breathing, Fever, and other Symptoms should supervene, resembling an Inflammation of the Lungs, let Blood be taken away freely from the Arm, once, twice, or three Times, as Occasion shall require, leaving a due Space between each Bleeding; and let the *pectoral Apozem* above prescribed, and *Loboch* be continued; or give Oil of Sweet Almonds alone. About twelve Days from the Invasion, let the Patient be purged.

Dr. *Cameron*, of *Worcester*, judiciously observes, that the coming on of these Symptoms, after the disappearing of the Measles, is owing to the Retrocession of the morbid Acrimony, which raises a secondary Train of Symptoms, analogous both in Cause and Consequence to the *secondary Fever* in the *Small-Pox*, and that this may be prevented by giving small Doses of the Bark in Substance, with a little *watery Extract of Myrrh* in *small Cinnamon Water*, sweetened with Sugar. By this Course, likewise, the Measles will keep their accustomed Stages, but with less Alarm and Disturbance than usual. The Fever and Cough will cease on the Seventh, and the Efflorescence will not leave the Face till after the Twelfth; for the Bark prevents the Retrocession of the morbid Acrimony.

A Looseness, which succeeds the Measles, is cured by Bleeding only. SYDENHAM.

MEAD observes, that this Disease is of kin to the *Small-Pox*, and requires a Management not very different from the same: That Blood must be taken away at the Beginning, according to the Age and Strength of the Patient; that it is best to do this before the Eruption of the *Pustules*, but if they are already come out, it must, however, be taken away: For the greatest Danger is *an Inflammation of the Lungs*, which cannot be prevented too soon; therefore in the Height of the Fever, it is sometimes necessary to repeat it; and in the End of the Disease, when the Scales are falling off, it will be a greater Error not to open a Vein again, than by this Means the Flux of the Humours upon the Breast and Intestines, and the Symptoms of a *hectic Fever* and *Consumption*, may be happily prevented.

The

The *Diet* ought to be the same as is prescribed in the *Small-Pox*, taking particular Care that the Body be kept lax rather than bound up, through the whole Course of this Distemper.

As to the Remedies; to those *cooling ones* which are directed in the *Small-Pox*, must be added, such as abate the Cough, and help Expectoration; particularly the *Oily Linctus* and *Pectoral Infusion*, of which, with the Addition of a little *Nitre*, the Patient may drink plentifully.

Sydenham was not cautious enough, in giving *Diacodium* on the first Days of the Illness; because it thickens the Humours, straitens the Breast, and retards the Eruption of the Pustules. Therefore during the Increase of the Distemper it is to be used sparingly; but at the latter End, Opiates are of great Service in quieting the Cough, and preventing a Hectic Fever and Consumption.

In the mean Time, *Purgés* are to be given at due Intervals. *Milk*, especially that of *Asses*, is to be drank; and Exercise, suitable to the Strength of the Patient, is to be daily enjoined.

Of the SMALL-POX.

THE Small-Pox is commonly divided into two Kinds; the *Distinct* and *Confluent*.

The *DISTINCT SORT* begins with Chillness and Shivering, intense Heat, a violent Pain of the Head and Back, an Inclination to vomit: In Adults, a great Propensity to sweat, (a Sign that the Pox will not run together;) a Pain at the Pit of the Stomach, if it be pressed with the Hand; a Dulness and Drowsiness, and sometimes epileptic Fits, especially in Children; and if the Breeding of Teeth is over, it is a Sign the Small-Pox is at hand; for if the Fit happens over Night, the Small-Pox will appear in the Morning; and are, generally speaking, of the favourable Sort.

On the *fourth Day from the Beginning*, they break out, sometimes later, seldom before, at which Time the Symptoms either abate or wholly disappear.

The *Spots* at first are *reddish*, and spread themselves over the Face, Neck, Breast, and the whole Body. Then there is Pain in the *Fauces*, which increases as the Pustules grow turgid.

On the *eighth Day*, the *Spaces* between the Pustules, which hitherto were *white*, begin to grow *red* and swell, and to be affected with a *tensive Pain*. The Eyelids are puffed up, and close

the Eyes; next to the Face, the Hands begin to swell, and the Fingers are distended; the Pustules of the Face, before smooth and red, begin to be rough (the first Sign of Maturation) and whitish, and throw out a yellowish Matter, in Colour like a Honey-comb.

The Inflammation of the Face and Hands being now at the Height, the Interstices between the Pustules are of the Colour of Damask Roses; and the more mild the Disease is, the greater is the Likeness.

The Pustules about the Face, as they ripen, grow more rough and yellow. But on the Hands, and the other Parts of the Body, they grow whiter and less rough.

On the *eleventh* Day the Swelling of the Face and Inflammation disappear, the Pustules being ripe, and of the Size of a large Pea, grow dry, and fall off.

On the *fourteenth* or *fifteenth* Day they perish entirely, except some obstinate Pustules on the Hands, which continue a Day or two longer, and then break. The rest come off in branny Scales, and in the Face leave Pits behind them.

Through the whole Course of this Disease the Patient's Body is either wholly bound, or he goes to stool but very seldom. Generally those who die of the Small-Pox, die on the *eighth* Day in the *Distinct*, and on the *eleventh* in the *Confluent* Sort. Then the Face, which ought to be turgid, and the Interstices florid, on the contrary is flaccid and whitish, at the same Time that the Pustules are red and elevated, even after the Death of the Patient. The *Sweat*, which was injudiciously promoted by *Cordials* and a *hot Regimen*, suddenly ceases; in the mean while the Patient is seized with a Phrenzy, a violent Anxiety, a Tossing and Sicknes; he makes Water often and little, and a few Hours close the tragical Scene.

In the *Confluent* Sort there are the same Symptoms, but much more violent. The *Fever*, *Anxiety*, *Sickness*, *Vomiting*, &c. more cruelly torment the Patient; yet he does not so soon fall into a Sweat, as in the *Distinct* Kind. A Looseness sometimes precedes the Eruption, and continues a Day or two after it.

On the *third* Day, sometimes before, seldom later, the Spots appear, and the sooner, the more will they run together. Sometimes the Eruption is retarded till the *fourth* or *fifth* Day, by some terrible Symptom, such as, a most acute Pain in the *Loins*, like a *Fit of the Gravel*; in the *Side*, like a *Pleurisy*; in the *Joints*, like the *Rheumatism*; in the *Stomach*, with a *Sickness* and *Vomiting*.

But the Symptoms do not remit after the Eruption, as in the *Distinct* Sort; but the *Fever* and other Complaints continue to molest

molest the Patient many Days after. Sometimes the *Spots* appear like an *Erysipelas*, sometimes like the *Measles*, but are distinguished from them by the Time of the Eruption. As the Disease increases, they do not rise to any considerable Height, being intangled with each other in the Face, but appear like a *red Blister*, and cover all the Countenance, which swells sooner than in the *Distinct* Kind. Afterwards they seem not unlike a *white Pellicle* glued to the Face, and are not much higher than its Surface.

The *eighth Day* being past, the *white Pellicle* grows daily more rough, and of a dusky Colour. The Pain of the Skin becomes more intense, and at last, in the more cruel Kind of this Disease, they do not fall off in broad large Scales, till after the *twentieth Day*. But this, in the mean Time, is worthy of Observation, that the more the ripening Pustules are of a *brownish* Colour, they are the worse, and the longer in falling off; and the more *yellow* they are, the less they run together, and the sooner they disappear.

When the *Pellicle* falls off, there is no Roughness on the Face, but branny Scales soon appear in its Room, of a very corrosive Nature, which leave deep Pits behind them, and sometimes ugly Scars; sometimes the Shoulders and Back are quite deprived of their Cuticle.

The Danger of the Disease is to be estimated from the Number and Multitude of the *Pustules* on the Face alone. The *Pustules* of the Hands and Feet are the greatest; and the farther they are removed from the Extremities, the less they are; in Adults a *Salivation*, and in Children, a *Diarrhœa* is a Sign, though not always, of the *Confluent* Sort. The Spitting sometimes begins with the Eruption, sometimes two or three Days after it; the Matter is at first thin, but on the *eleventh Day* it is viscid, and hawked up with Difficulty; the Patient is thirsty and hoarse, extremely sleepy, and his Senses exceeding dull: He sometimes coughs when he is drinking, and the Liquor regurgitates through his Nostrils: Then the Salivation generally ceases, but the Swelling of the Face ought not to go down quite till a Day or two after, when the Spitting is over; if the Hands do not begin to swell remarkably, and continue so for some Time, the Patient will suddenly leave the World.

The *Diarrhœa* does not so soon attack Children as the *Salivation* does Men. In both Sorts of this Disease the Fever predominates from the first Onset till the Eruption; then it abates till the Pustules are ripe, at which Time it terminates.

A *bad Regimen* causes many *irregular Symptoms*, such as a Flaccidity and Subsiding of the Pustules, a Phrenzy, a *Coma*,
purple

purple Spots intermixed with the Pustules, and small black Spots on the Top of the Pox, subsisting in the Middle, (which are almost always a fatal Sign,) at the Beginning of the Disease bloody Urine and Spittle, and Suppression of Urine.

The Day on which the Patient is most in Danger, in the least crude and most common Sort of the *Confluent*, is the *eleventh* from the first Attack of the Disease; in the more crude, the *fourteenth*, and in the most crude, the *seventeenth*. Sometimes, but very seldom, the Patient does not die till the *twenty-first*. But in the Space of Time from the *eleventh* to the *seventeenth*, as the Evening comes on, the Patient is daily tormented with a Fit of Inquietude. SYDENHAM.

Most Authors divide the *Small-Pox* into the *Distinct* and *Confluent* Sorts; but, in my Opinion, it more accurately and agreeably to the Nature of the Disease may be divided into *Simple* and *Malignant*.

The *Simple Sort*, is that in which the Eruption is attended with a slight Fever of a short Duration, the Pustules fill kindly, make good Matter in a few Days, and at last fall off in dry Scabs.

The *Malignant Sort*, is that in which the Eruption appears with a malignant Fever, the Pustules hardly come to any tolerable Degree of Maturity, and either suppurate not all, or, if they do in some Measure, as the Fever is never off, it is with great Trouble; they at length end in little Crusts.

The *Malignity* appearing in various Forms, has given various Appellations to the *Small-Pox*; but the Differences which have fallen under my Observation, are these that follow; the *Crystalline*, the *Warty*, and the *Bloody*.

The *Pustules* of the *Crystalline*, instead of thick, well-digested Matter, contain nothing but a thin, pale Water, and are in some measure *pellucid*. And this Sort is sometimes observed in the *Distinct* as well as the *Confluent*. Sometimes the Fluid flies off and leaves hollow Bladders.

The *Warty Pustules* contain no Fluid, but grow hard and prominent above the Skin, like Warts: These are peculiar to the *Distinct* Sort.

The *Bloody Pustules* are produced more Ways than one. For, sometimes at the very Beginning of the Disease, the Pustules are small Tubercles full of *blackish Blood*, as if the Skin were pinched with a *Forceps*. Then *purple* and *livid Spots* follow, such as are described in the true Plague. But it more frequently happens, that the Pustules coming out very thick, on the *third* or *fourth* Day after, when they ought to fill, become *livid* and a little *bloody*, with *black Spots* spread over the whole Body; which forebode

forebode Death in a Day or two, being *real Gangrenes*. It very often falls out at this Time, that a thin Blood flows not only out of the Patient's Mouth, Nose, and Eyes, but also by every Outlet of the Body, more especially by the urinary Passages, as it does sometimes on the first Days of the Distemper. These are manifestly of the *Confluent Sort*.

In the *Management* of the Patient in the *Distinct Sort*, Regard should be had to the Season of the Year, and the Strength of the Patient. *Let this be a general Rule*, To keep the Patient in Bed during the first Days of the Distemper, taking Care to defend him from the Inclemency of the Winter by proper Means; and to moderate the excessive Heat in Summer by cool Air: For the Patient ought not to be stifled by Heat and Cloaths, nor should the Eruption and Perspiration be checked by Cold. However, great Care ought to be taken in general to supply him with pure and cool Air; because a hot Air causes Difficulty of Breathing, checks the Secretion of Urine, and increases the Number of Pustules on the internal Organs of the Body; the Consequence whereof we may justly apprehend to be *Inflammations, Suffocations*, and, towards the End of the Disease, *Gangrenes*.

With regard to DIET, it ought to be very slender, moistening, and cooling; such as *Oatmeal*, or *Barley-gruel*; and in the Beginning, the best *Regimen* is that which keeps the Body open, and promotes Urine. This End is obtained by boiling preserved Fruits with their Food, such as *Figs, Damascene Plums, and Tamarinds*, and by giving them subacid Liquors for Drink; as *Small Beer acidulated with Orange or Lemon Juice; Whey turned with Apples, boiled in Milk; Emulsions made with Barley-water and Almonds; Moselle, or Rhenish Wine, plentifully diluted with Water*; or any other Things of this Kind.

When this Sort of Diet did not keep the Body open, the *Arabian Physicians* prescribed *Manna*, but sparingly. For the *keeping the Body open in the Beginning* is a most important Advice, if the making of Urine also be promoted, so as to discharge it plentifully. MEAD.

In the *Cura*, Sydenham directs Bleeding on any of the three first Days to nine or ten Ounces; and then an Ounce, or an Ounce and an half of *Emetic Wine*. But some Physicians will not allow a Vomit by any Means, unless there is a *Nausea*, and the Head is much affected. Yet *Hoffman* judges it to be proper on the first Day of the Invasion, and prescribes two Grains of *Emetic Tartar* dissolved in *Cinnamon Water*, to Adults.

Mead, in the first place, advises Bleeding even to Children, and affirms, that when they are seized with Convulsions at the
Onset

Onset of this Disease, some Evacuation *ought* to be made, which may be done safely by Leeches applied to the Temples, or behind the Ears. Likewise, if Blood cannot be drawn from the Arm, in younger Subjects, either of the Jugulars may be opened without any Inconvenience.

That Regard is to be had to the Patient's Strength is allowed, but the Weakness is seldom so great as not to allow some Loss of Blood. And when the Pulse is low, because the vital Fluid is not propelled from the Heart with due Force, arising from a Thickness of the Blood, by removing the Oppression, the Patient's Strength is observed even to increase with the Bleeding.

In *Youths* and *Adults*, it is often necessary to take away Blood two or three Times, only with an Intermission of two or three Days between each Time. Blood-letting is so far from being an Obstacle to the Eruption of the Pustules, if the Patient is not too weak, that it forwards it considerably. When the vast Number of small Pustules foreboded a Disease of the worst Kind, the Face of Affairs has been so remarkably changed upon one or two Bleedings, that the Pustules increased in Size, and diminished in Number. It also prevents a *Delirium*, Convulsions, Difficulty of Breathing, and the like. Bleeding may be used at all Times when the Violence of the Fever requires it, and the Patient is able to bear it.

A *Phrensy* coming on the *fourth* Day of the Eruption has been justly esteemed a fatal Omen; yet many have been saved by *drawing Blood* immediately, and then throwing in a *Clyster*.

After Bleeding, a *Vomit* should be given, if the Stomach abounds with *Phlegm* or *Bile*, or be loaded with Food unseasonably taken. Otherwise a *Purge* may be prescribed *before the Eruption of the Pustules*. Which may be the Infusion of *Senna* with *Manna*, or *Manna* alone, especially for Children; for no Disturbance is to be raised in the Body. MEAD.

[*Hoffman* sometimes adds *Manna*, or *Tartar Emetic*, to loosen the Belly at the same Time. And for a *Purge* he gives the Decoction of Tamarinds, with *Rhubarb* and *Manna*; and if there is Ground to suspect that the gross Intestines are stuffed with *Scybals*, he directs an emollient and stimulating Clyster: And advises to procure the Patient a Stool within eight or ten Days.]

In the first Days, the Blood may be diluted with *hopped Small Beer*, which may be acidulated with Spirit of Vitriol till the Eruption is completed. SYDENHAM.

To keep the Inflammation of the Blood within due Bounds, and to assist the Expulsion of the morbid Matter through the Skin:

1. R. Pulv. Bezoard. $\mathfrak{z}$ ss. Nitr. Purificat. $\mathfrak{z}$ ij. M. F. Pulvis.
Half a Dram of this may be taken by an Adult three or four Times in a Day; diminishing the Quantity for Children in Proportion to their Age.

Sometimes equal Parts of these Ingredients may be prescribed; and, if the Effervescence of the Fever runs very high, a proper Quantity of the *Spirit of Vitriol* may be added to the Patient's Drink. But if there be any Keckings and Reachings to vomit, they will be removed by *Draughts* containing *half an Ounce of the Juice of Lemon with one Scruple of the Salt of Wormwood.* MEAD.

Dr. *Cameron* observes, that in the milder Kind of the Small-Pox the Fever is separated by two perfect Intermissions; and though in the malignant Sort they run into each other, yet the Traces of the Limits may be discerned by some Degree of a Remission. The *First* of these is the *Fever of Desquamation*, caused by the circulating variolous Matter. The Business of this is to protrude the Matter to the Surface of the Body, and the complete Eruption is its *Crisis*. Now as no Patient ever died for Want of a sufficient Eruption, Nature at this Time needs a Bridle, and very seldom a Spur; because the Danger is measured *ceteris paribus* by the Number of the Pustules. Therefore in this Fever it will be proper to keep the Patient low, and to be very free in the Use of Nitre, or Vegetable or Mineral Acids, according to the State and Texture of the Blood.

The next *Fever is that of Maturation*, caused by the stationary variolous Matter; the Intention of which is to ripen it into laudable Pus. The Time of the complete Production of this is the *second Crisis*. Here *Broths, Jellies, small vinous Liquors, the Bark, and Myrrh*, are useful and necessary. But the Method of preventing bad Symptoms, which in the Course of twenty Years Experience I have found to be of great Use, is as follows: On the Day before the Face is expected to sink, the Arms and Legs must be wrapt up lightly in a *suppurating Cerate*, for Instance, the *Citrine*, spread on Linen Rollers, and tacked together so as to make one continuous Plaster. This greatly facilitates the Translation of the *acrid Serum* from the Face and Head to the Limbs, promotes the Suppuration of it when translated, and presently removes the burning Pain, which is usually so insupportable in those Parts, at this Time of the Disease. In less than an Hour after the Application of these Plaisters, adult Patients have cried out joyfully, *they were in Heaven*. The *Pustules*, as far as the Plaster reached, have sometimes ripened and filled with laudable Pus, even to bursting;

ing; and this dangerous Period has passed over without an alarming Symptom.

The *third Fever* is that of *Retrocession*. The Operation and Crisis of this are various, both as to Time and the Manner of Termination; therefore the Medicines must be varied accordingly. This is caused by the Retrocession of the morbid Matter from the Skin, and is commonly called the *Secondary Fever*. There are two Kinds of this Matter, the *Pus*, and a *caustic Serum*; which last colours the Basis of the Pustules, and has been stagnating and corrupting there ever since the Eruption. The concocted Pus is never resorbed, nor could it excite such a dangerous Fever if it were. But the very Moment the *Bases of the Pustules* lose their fiery Colour, this Fever kindles as with a Flash of Lightning. Hence it is highly probable, the caustic Acrimony of the resorbed Serum is the Cause of this Fever. *Bleeding* at this Juncture, though recommended by high Authority, is very improper; but it will be convenient to prescribe *nitrous Absorbents*, *Analeptics*, and Plenty of diluting, absorbent Liquors. This Method, in seemingly desperate Cases, has succeeded beyond Expectation. The Hurricane on the eleventh Day has gradually subsided, and ended in a perfect Calm by the fifteenth, *without Blistering or Bleeding*. CAMERON.

When the Eruption of the Pustules is completed, which generally happens on the sixth Day from the Attack, let the Patient take an Ounce of *Diacodium* every Evening till the tenth Day after the Invasion. On that Night, if the *Small-Pox* be of the *Confluent Kind*, the Dose must be increased to an Ounce and a half; and an Ounce in the Morning; and so an Ounce and a half every Night till the Patient is recovered.

If the *Diacodium* should not agree with the Patient, he may take *liquid Laudanum*, viz. xvij. Drops for ℥j. of the Syrup, and xxv Drops for ℥iss. But it is to be noted, that if the Paregoric taken twice in a Day is not sufficient to appease the Commotion, which often happens towards the End, in the *Small-Pox* which remarkably run together, then it is to be given every eighth Hour, or oftener if there be Occasion.

But in the *Distinct Sort*, it will be sufficient to give a Paregoric every Evening, and in a lesser Dose, after the compleat Eruption of the Pustules.

Yet whatever are the Sort, and at whatever Time of the Disease a *Phrensy* shall happen, it is to be curbed by *Paregorics*, given one after another till the End is obtained, only waiting to see the Effects of one Dose before another is ordered. SYDENH.

Medicines that procure Sleep, says *Mead*, are not to be used over hastily; for all *Anodynes* in some Measure obstruct the
Separa-

Separation of the morbid Matter from the Blood, *unless the Pain happens to be excessive*: And moreover, if the Violence of the Fever has raised a *Delirium*, they generally make it worse. Wherefore, it is not proper to employ them till the Eruption of the Pustules is compleated; and then they may be administered with Safety. These Medicines agree not so well with Infants, but Adults may take a Dose of *Thebaic Tincture* every Evening, and in Cases of *great Inquietude*, the Dose may be repeated in the Morning; for the Suppuration of the Matter stagnating in the Pustules is forwarded with Quiet and Sleep. But if towards the End of the Disease the Patient happens to be seized with *Shortness of Breath*, or *Danger of Choaking* from viscid Slime, these Medicines are to be entirely prohibited.

In the mean time, if the *Patient is costive*, which is generally the Case, and the Fever continues, the Body is to be opened with a Clyster every second or third Day.

If this Method is proper in the *Distinct Small-Pox*, it will be found more necessary in the *Confluent*, which is attended with greater Fear and Danger.

In the *Crystalline Sort* of the *malignant Small-Pox* the Water of the Pustules can never be brought to a laudable Suppuration. Therefore, while the *thinner Parts* are made to transpire through the Skin, the *grosser* ought to be drawn off through the *Urinary Passages*, by *diuretic Medicines*. To this Purpose *Nitre* may be administered three or four Times a Day, from a *Scruple to half a Dram* in small Wine, which is the only Sort that agrees with this Disease, till towards the End, and then the Patient may be allowed a little *Canary*, or any other soft or generous Wine, to support his Strength. While *Nitre* is thus taken, it will be right to interpose Medicines which cherish the Heart, and promote the Flux * of the Humour into the Pustules, such as *Raleigh's Cordial*, or the *Cordial Confection*; the *Bezoardic Powder*, sometimes with a little *Saffron*, and the *plain Spirit of Harishorn*.

Besides these, on the *fifth* or *sixth* Day of the Eruption, *Blisters* are to be applied between the Shoulders, and to the Arms and Legs. For which Purpose the *blistering Epithem* is most convenient. By thus *discharging the Serosities*, the *Fever*, which increases when there is no farther Derivation of Humours to the Skin, is seasonably prevented.

The *Warty Small-Pox* is more dangerous than the *Crystalline*, because the Matter of the Disease being *too thick*, can neither *suppurate* nor pass off by Urine. Wherefore it is necessary to use the utmost Endeavours to take off the *Fever*, and

* Concerning this see farther, Page 163, following.

to *provoke a Sweat*, in order to digest the morbid Humour, by the *Cordial Medicines* above mentioned. And *Blisters* ought to be applied in this Case likewise. But the *Arabian Physicians* pronounced this Sort of the Disease to be always fatal.

The *Bloody Small-Pox* requires peculiar Attention. Now in this Sort, if any good can arise from Physic, those Medicines bid fairest for Success, which by their *Stypticity* in some Measure thicken the Blood, and so check it, that it cannot break through even the smallest Arteries. The best of this Kind are the *Peruvian Bark*, *Alum*, and *Oil of Vitriol*; which are best used alternately in this Manner. A Dram of the *Bark* may be given every sixth Hour; and three Hours after a proper Quantity of *Alum*. It will be a very powerful Medicine if thus compounded; melt three Parts of *Alum* with one Part of *Dragon's Blood*, over the Fire, and when the Mass is grown cold, reduce it to a Powder, a Scruple of which made in a *Bolus* with *Conserve of Roses*, will be a proper Dose. The most convenient Manner of giving the *Oil of Vitriol*, is in the *Tincture of Roses*; of which *Tincture* five or six Spoonfuls may be taken several Times in a Day; and the Patient's common Drink may be acidulated with it, especially if *Purple* or *Black Spots* appear interspersed among the Pustules. And this Medicine will be of great Service not only in the *Bloody*, but in all other Sorts likewise, accompanied with these Spots: *Blisters* in this Case are safe enough when a *Delirium* requires their Application.

[*Hoffman* affirms, that *Hæmorrhages* in the *Small-Pox* are better relieved by *Buttermilk* and *Whey*, than any other Medicine whatsoever.]

In every Sort of this Disease, it is proper to *open the Body* on the Decline, that is, on the *ninth* or *tenth Day* from the Eruption, because a *putrid Fever* generally comes on about that time, while the Pustules are drying, or upon the Subsidence of the Swelling of the inflamed Skin where there is no Suppuration, which Fever cannot be taken off with equal Safety by any other Means; but *gentle Cathartics* alone are to be employed in this Case, such as were directed before the Eruption of the Pustules.

[Or thus,

2. R. *Man. optim.* ℥j. Dissolve in *Aq. Alexeter. sim.* ℥iij. *Colatur. adde Pulp. Cassiæ* ℥ij. *Aq. Alexeter. Spir.* ℥ls. *M.F. Potio.*]

If the Patient's Body happens to be loose, this Remedy becomes less necessary, or may be postponed for some Days. Also, when there is any purulent Matter lurking under the withered

withered Skin of the Pustules, the Body is not to be purged, but rather to be supported by proper Diet till the Matter is all come away. This sometimes has run till the twenty-fourth Day of the Disease, and yet the Patient recovered.

It will also be of Use at this Time to *take away some Blood*, if the Heat be too great, and the Patient has Strength to bear it. MEAD.

This *Putrid Fever*, is by Sydenham called the *secondary Fever*, which comes on with Heat, Inquietude, Tossing, &c. and, unless prevented, takes off the Patient in two or three Days. He mentions this Fever as coming on the *eleventh Day*, or later; but this is to be understood from the Time of the Invasion, whereas Mead reckons from the Time of the Eruption. Sydenham prescribes large Bleeding, and a Cathartic two Days after, viz. *Elect. Len. ʒj. dissolut. in Aq. Alexeter. sim. ʒiv.* together with the free Use of *Paregorics*. And here it will not be improper to take Notice, that Simson, Professor of Medicine at St. Andrew's, inveighs against the Use of *Diacodium* in the Small-pox, unless in Case of Pain, and then he gives a Clyster with it. But his chief Reason is, that it renders the Body costive, which he looks upon as very hurtful. This Objection is guarded against in the above Method, extracted from Dr. Mead.

If there is an entire Suppression of Urine, the Patient is to be taken out of Bed, and made to walk a little about the Room. SYDENHAM. [Concerning Bleeding in this Fever, see p. 155.]

This generally has a good Effect; but the most convenient Method will be to open the Body with a Clyster, especially if the Pustules now appearing, there be any Fear of taking Cold; and then to insist a little on *diuretic Medicines*; for which Purpose Glauber's Salt is particularly useful, as it is both *laxative* and *diuretic*. Its Dose is from ʒss. to ʒj. dissolved in an aqueous Vehicle. MEAD.

The best Medicine in this Case is *Salt of Amber*: And as for the taking Patients out of Bed, this Practice has often been attended with fatal Effects, agreeable to what Hoffman says in his Dissertation *De situ erecto in Morbis periculosis valde noxio*. CAMERON.

If the Spittle, through Heat, is so tough that it cannot be hawked up, let a Gargle be frequently injected into the Throat with a Syringe. It may be compounded of *Barley-water* and *Honey of Roses*. Or the following may be prescribed,

3. R. Cort. Ulmi, ʒvj. Lad. Glycyrrhiz. ʒls. Pafs. inuclcat. No. xx. Ros. rub. pug. ij. Coq. in q. s. Aq. ad. ʒlss. in Colatur. dissolv. Oxytel. simp. et Mel. Rosar. an. ʒij. M. F. Gar-garisma. SYDENHAM. [Or,

4. R. Decoct. Pest. ʒlss. Aq. Alexeter. sp. ʒlss. utatur Eger pro Garg. & Potu etiam ordinario.]

When the *Matter of Salivation* grows very viscid and begins to clog the *Larynx* and *Trachea*, some prescribe a *Vomit*, but very improperly. The best Method is to boil *Marsh-mallows*, *Myrrh*, and *Honey*, in a sufficient Quantity of Water and *Vinegar*, and to transmit the Steam of the Decoction into the Patient's Mouth, through a Glass or Tin Tube, of such a Shape and Length as is most commodious for a recumbent Posture. By this Method the Breath of the Patient will be impregnated with an effectual topical Medicine; for twenty-two Years Experience has shewn the Certainty and Value of it. CAMERON.

From the eighth Day to the End of the Disease, *Garlick* may be applied to the Soles of the Feet, which must be renewed every Day, especially when the Brain is affected.

When the Pustules are perfectly dry and withered, the Face may be anointed with a *Liniment*, made of equal Parts of *Oil of Sweet Almonds* and *Pomatum*, for two Days, and no longer.

Twenty-one Days after the Invasion let a Vein be opened in the Arm, and the next Day give a *Cathartic*, which may be repeated every other Day three Times more. SYDENHAM.

This is necessary, because no Species of Fever requires the Body to be thoroughly cleared of the Remains of the Disease more than this. After the *Cathartics*, the Body is to be restored to its former State by a Course of Milk; especially that of *Asses*, with suitable Food, and the Air and Amusements of the Country.

As there are particular *Accidents* in the Small-pox which do not commonly occur, it will be proper to say something of them. Sometimes the Patient is seized with *Convulsions* just before the Eruption, which is rather a good than a bad Sign in Children. In this Case *Blood-letting* is carefully to be avoided; but a *Blister* is to be applied to the Neck; and to the Soles of the Feet. Plaisters made of equal Parts of the *Cephalic* and *Blistering Plaisters*; not forgetting to give *antispasmodic Medicines* inwardly. The chief are *wild Valerian-root*, *Russian Castor*, and the *Spirits of Volatile Salts* chemically extracted from Animals.

In

In Adults the thing is otherwise; for they, if not too weak, may lose a moderate Quantity of Blood, and then be put into the foregoing Method.

- Or, 5. R. *Cornu C.* ppt. ʒss. *Castor.* gr. viij. *Sal. Volat. C. C.* gr. v. *M. F. Pulvis,* exhibe ex *Aqua aliqua* convenient. Or,
6. R. *Rad. Valerian. Sylv.* ʒss. *Sal. Volat. C. C.* gr. v. *Campb.* gr. ij. *M. F. Pulvis,* exhibe ex *Aq. Alexeter. Simp.* These are for Adults.

Haller tells us, that *Campfire* assists greatly in filling the Small-Pox of the *Confluent Kind* with *Petechiae*; and *Monro*, that the *Peruvian Bark* does the same; that it filled the empty *Vesicles* with Matter, changed the watery *Sanies* into thick white Pus, made the *Petechiae*, or Spots, turn gradually to a pale Colour, and caused the Pox to blacken sooner than was expected. The Dose, in Powder, is from ten to twenty Grains in some rich Syrup, with an aromatic distilled Water, every four or five Hours. Children may take it in a Clyster, with a small Quantity of warm Milk, after the Bowels are unloaded with a preparatory Clyster. If the Clyster should be retained too short a Time, Syrup of Poppies to be added, or *Dioscordium*. These Injections to be repeated Morning or Evening, or oftener. The Bark has had good Effects in mitigating the *secondary Fever*. When the Lungs are greatly stuffed, it is not to be given.]

When the Eruption appears without much Fear or Pain, it is yet not without Danger; for the Pustules frequently do not tend to Maturity, and there is no Suppuration made. Hence the Fever increases with Inquietude of Body, Anxiety of Mind, Difficulty of Breathing, and a Delirium, which carry off the Patient in a few Days. In this State, the Fever ought rather to be raised than checked, and then warm Medicines are to be directed, which promote Suppuration, by increasing the Motion of the Blood, and thinning the Humours, such as *Virginia Snake-root*, *Contrayerva-root*, *Saffron*, *Assa-Fetida*, *Myrrh*, and the like.

7. R. *Rad. Contrayerv.* ʒss. *Rad. Serpent. Virgin. Croc. an.* gr. v. *M. F. Pulvis.* Or,
8. R. *Rad. Serpent. Virgin.* gr. xij. *Rad. Contrayerv.* gr. vi. *Myrrh. Croc. an.* gr. v. *M. F. Pulvis.* Or,
9. R. *Rad. Serpent. Virgin.* gr. xv. *Castor. Croc. an.* gr. v. *M. F. Pulvis.*

These are each for one Dose, and may be taken every four or five Hours in any proper Julep, or other Vehicle. But, above all, Blisters must be laid on the Limbs.

When the Matter of the Infection is overabundant, as it happens in bad Cases, Nature never fails endeavouring to throw off the Load. Thus, in *Adults* a *Spitting* comes on upon the first Days of the Eruption, whereas *Children* have a Looseness almost through the whole Disease, which is not to be inconsiderately stopped. So again in *Adults*, if the Spitting does not go on to our Wishes, it ought to be promoted by Medicines which stimulate the Glands of the Mouth, especially *Gargles* made of a *Decoction* of *Mustard-seed* and *Pepper*, with the Addition of *Oxymel*. For in the *Confluent* and *Malignant* Small-Pox, if this Flux does not arise and continue to the End of the Disease it is a very bad Sign.

Whenever a *Woman with Child* is seized with the Small-Pox, there is Reason to fear a Miscarriage, which is dangerous from the *new Fever* that supervenes this Accident, and from the Loss of Blood, which may bring her very low; and the nearer she is to her Time, the greater Risque she runs. Yet there have been frequent Instances of both Mother and Child doing well. A good deal depends on the Time of the Disease when the Abortion happens; because, the more nearly it coincides with the Time of ripening the Pustules, the more Danger it occasions. Wherefore, if the *Efflux be more than Nature usually requires*, the Medicines used in the *Bloody Small-Pox* are to be given.

Women's Monthly Evacuations coinciding with the Small-Pox, whether they happen at the usual Time, or are brought on irregularly by the extraordinary Effervescence of the Blood, in both Cases rather afford Relief, than threaten Danger. But, if the Discharge should be so great as to weaken the Patient overmuch, the Medicines recommended in the *Bloody Small-Pox* will be here also beneficial; not neglecting to draw Blood if requisite.

Likewise *Bleeding* at the Nose in the Beginning of the Distemper, by diminishing the Heat, is rather serviceable than detrimental, if not too excessive.

It sometimes happens, though not often, that the Variolous Fever is accompanied with a *single* or *double Tertian*; in which Case the *Peruvian Bark*, or its Extract, is to be given at proper Distances of Time, till the Fits cease to return. But first, the Body is to be opened with a Clyster. Nor will this Medicine hinder the Maturation of the Pustules, but the contrary.

This is a *general Rule*, that whatever *acute Disease* comes upon the *Small-Pox*, it must be treated with its own *peculiar Medicines*. MEAD.

Of INOCULATING the SMALL-POX. II

THE very salutary Practice of *Inoculating the Small-Pox* being at this Time most firmly established in every Part of Europe, especially *Great Britain*, I shall here wholly omit every thing that has appeared about it, of a controversial Nature, in former Editions of this Work, and confine myself to a succinct Abstract of the Method of Dr. DIMSDALE, which has justly acquired him the greatest Reputation and Honours, both at Home and Abroad.

In regard to Age, where it is left to his Choice, he declines inoculating Children under two Years old, as they are exposed to the Hazard of Dentition, Fevers, Fluxes, Convulsions, &c. insomuch, as scarce two in three of all that are born arrive at that Age: besides, young Children have usually a larger Share of Pustules from Inoculation, than those advanced a little further in Life; and under this Circumstance, it is well known, many have died: Nor does there appear any Reason to exclude healthy Adults of any Age, some of Seventy having gone through it with the utmost Ease.

As to Constitution, Persons afflicted with various chronic Complaints, *scrophulous, scorbutic, arthritic, corpulent, intemperate, &c.* have all recovered with the same Ease as the most healthy, temperate, and regular. But such as labour under *acute or critical Diseases*, or their *Effects*, are obviously improper Subjects. So likewise are those who carry evident Marks of *corrosive, acrimonious Humours*, or labour under a manifest *Debility of the whole Frame*; all these should be treated in a proper Manner, previous to Inoculation. He has known, however, Instances of *severe Ague Fits*, between the Insertion of the Matter and the Eruption of the Pock; and even during the Maturation; when he gave the *Peruvian Bark* liberally and with Success; the principal Business, in the mean Time, suffering no Interruption.

Inoculated Persons have generally had more Pustules in Spring, than in any other Season; but Epidemics prevailing mostly in Autumn, especially *Fluxes, Intermittents, and ulcerated sore Throats*, (all which are liable to mix, more or less, with the Small-Pox,) he thinks *Autumn* the most unfavourable Season to Inoculation. Yet he thinks, that considering the surprising and indisputable Benefits, in all Cases of the Small-Pox, from the free Admission of *fresh cool Air*, and *Evacuations*, we may safely inoculate in all Seasons, screening the Patients from too

much Heat in Summer, and not suffering them to be too much shut up and loaded with Bed-cloaths in Winter.

If any *epidemic Disease* prevails, it is most prudent to defer inoculating till it is over, or abated.

In directing the preparatory Regimen, he principally aims at these Points: To reduce the Patient, if in high Health, to a low and more secure State; to strengthen the Constitution, if too low; to correct what appears vitiated, and to clear the Stomach and Bowels, as much as may be, from all Crudities and their Effects. With this View, he orders those who constitute the first Class, by far the most numerous, to abstain from all Animal Food, Butter, Cheese, and fermented Liquors, except Small-Beer, but not much of that; from Spices, and whatever has a heating Quality. The Diet, Pudding, Gruel, Sago, Milk, Rice-Milk, Fruit Pyes, Greens, Roots, and all Vegetables in Season, prepared or raw. The Stomach must not be over-loaded. Tea, Coffee, or Chocolate for Breakfast for those accustomed to them.

Thus they should proceed about ten Days before the Operation, during which, at equal Intervals, they are to take three Doses of the following Powder, made into Pills, with a little Syrup or Jelly, at Bed-time, viz. *Eight Grains of Calomel, the same Quantity of Compound Powder of Crabs Claws, and one-eighth of a Grain of Emetic Tartar.* Or, instead of the latter, *two Grains of precipitated Sulphur of Antimony*, to be worked off next Morning with *an Ounce of Glauber's Salts*, dissolved in thin Water-Gruel. This for a healthy strong Man: For Women and Children the Dose to be lessened according to the Age and Strength.

Among those desirous of Inoculation are often found tender, delicate, and weakly Women, Men of originally bad Constitutions, or reduced by Intemperance, also aged Persons and Children. These require a very different Preparation, rather of the alterant than purgative Kind; and sometimes an Indulgence in light Animal Food, as Broths, and a Glass of Wine or two is allowable, especially to support Strength, in advanced Age.

Inattention to the State of Health has done great Mischief, particularly in the indiscrete Use of Mercurials, whereby a Salivation has been raised.

The Time of Menstruation has generally been the Guide in respect to the Inoculation of Women; that the whole Disease might be over within the menstrual Period; though there is no Reason to decline the Operation at any Time.

Women

Women with Child have likewise been inoculated and done well; yet he has never inoculated any whom he knew to be pregnant.

Various have been the Ways of communicating the Small-Pox by Inoculation in this Country. The two which Dr. D. has frequently practised; but the following has been so invariably successful, as to induce him to give it the Preference.

The Patient being in the same House, and, if no Objection is made to it, in the same Room with one who has the Disease; a little of the variolous Matter is taken from the Place of Infection, if the Subject is under Inoculation, or a Pustule, if in the natural Way, on the Point of a Lancet, so that both Sides of it are moistened. With this an Incision is made in that Part of the Arm where Issues are generally made, deep enough to pass through the Scarf Skin, and just to touch the Skin itself, and in Length as short as possible, not more than one-eighth of an Inch. The little Wound being then stretched open between the Finger and the Thumb, the Incision is moistened with the Matter, by gently touching it with the flat Side of the infected Lancet. This Operation is generally performed in both Arms, and sometimes in two Places in one Arm, near together, to be the more secure of the Infection's taking Place. The following Method has also been tried by him with the same Success, though he has heard it has sometimes failed with others. A Lancet being moistened in the same Manner, is gently introduced, in an oblique Manner, between the Scarf and the true Skin, and the Finger of the Operator is applied on the Point, in order to wipe off the Infection from the Lancet when it is withdrawn. In both these Ways neither Plaister, Bandage, nor Covering is applied, nor in any Respect necessary. These Methods of producing the Disease never once failed him.

It is of no Consequence whether the Matter be taken from the natural or inoculated Small-Pox, or whether the Matter be before or after the Crisis; he generally chooses to take it during the Fever of Eruption.

If neither an inoculated Patient is at Hand, nor any one in the Neighbourhood has a distinct Kind of the natural Disease, an infected Thread may be insinuated into a superficial Incision in both Arms, provided it has not been a long Time infected.

The Day after the Operation has been performed, little Alteration is discoverable. On the second Day, if the Part is viewed with a magnifying Glass, there generally appears a Kind of Orange-coloured Stain about the Incision, and the surrounding Skin seems to contract. Then the following may be given going to Bed:

Calomel and compound Powder of Crabs Claws, three Grains of each, Emetic Tartar one-tenth of a Grain.

On the fourth or fifth Day, a Hardness is to be felt by the Finger; the Patient feels an Itching on the Part, which looks slightly inflamed; and under a Kind of Vescication is seen a little clear Fluid; the Part resembling a superficial Burn. About the sixth, commonly some Pain and Stiffness is felt in the Arm-Pit, foretelling the near Approach of the eruptive Symptoms, and is a Sign of a favourable Progress. Sometimes on the seventh, oftener on the eighth Day, the Eruptive Fever is announced by slight remitting Pains in the Head and Back, succeeded by transient Shiverings and alternate Heats, which continue, more or less, till the Eruption is perfected. At this Time the Patient often complains of a disagreeable Taste in the Mouth; the Breath is always fetid; the Inflammation in the Arms now spreads fast; and upon viewing them with a Glass, the Incisions for the most Part appear surrounded with an infinite Number of small confluent Pustules; which encrease in Size and Extent as the Disease advances. On the tenth or eleventh Day, a circular or oval Efflorescence is usually discovered round the Incisions, extending sometimes Half round the Arm, but more frequently to about the Size of a Shilling; and, being under the Cuticle, is smooth to the Touch, and not painful. This accompanies Eruption, and certainly indicates the whole Affair to be over; the Pain and Stiffness in the Arm-Pit also going off.

The feverish Symptoms are generally so mild, as seldom to require any medicinal Assistance, except a Repetition of the Medicine directed the second Night after the Operation; and next Morning this laxative Draught,

Infus. of Senna two Ounces, Manna Half an Ounce, Tinct. of Jalap two Drams.

To be given as the eruptive Symptoms are perceivable, if they seem to indicate any uncommon Degree of Vehemence.

If the described Appearances are early observed, a favourable Event is implied; but sometimes, although it may be perceived that the Inoculation has succeeded, yet it is but barely perceptible; the Colour about the Wound remaining pale, instead of red, or inflamed; the Edges of the Incision spread but little, remaining flat, scarcely rising at all, and are attended neither with Itching nor Uneasiness: Nay, sometimes on the fifth, and even the sixth Day, the Alteration is so little, as to make it doubtful whether the Infection has taken Place. These imply a late, and more untoward Disease: To prevent which, the
Powder

Powder or Pill is to be taken each Night; which, if failing to operate by Stool, or there being any Disposition to Costiveness, an Ounce of *Glauber's Salts*, or the mentioned laxative Draught, is to be given in the Morning, once or twice, as the Case may require. This forwards the wished for Inflammation.

Being now arrived at the most interesting Period, the Eruption, instead of confining the Patient to his Bed or Room, he directs him, as soon as the Purging Medicine has operated, to keep Abroad in the open Air, be it ever so cold, as much as he can bear, and to drink cold Water if thirsty; always taking Care not to stand still, but to walk about moderately, when Abroad. By this Conduct the Spirits are revived; an Inclination for Nourishment returns; he rests well; a gentle Sweat succeeds, accompanied with a favourable Sort; and the Fever seems wholly to be extinguished. He eats and sleeps well all the Time, and by and by there is more Difficulty in restraining him within due Bounds, and preventing him in mixing with the Public, and spreading the Infection, than there was at first to prevail on him to go Abroad.

During this Time, Medicine is seldom wanted; the cool Air seems the best Cordial: If any uncommon Languor happens, a Basin of small Broth, or a Glass of Wine, is allowed in the Day, or some White-Wine Whey at Bed-time.

With these Exceptions, he has so far kept them very scrupulously to the Diet at first directed. But after the Eruption is completed, if Occasion requires, they are indulged with well boiled light Flesh, as Chicken, Veal, or Mutton.

The above Regimen almost universally prevents either alarming Symptoms, or a large Crop of Pustules; sometimes, indeed, they have been so many, though distinct, that he has neither advised nor allowed them to go out of the House. But the Generality, when the Eruptions are few, amuse themselves Abroad, within proper Limits, with the Pustules out upon them. Indeed, he neither enjoins this, nor maintains that it is necessary; but has not been able to observe, that any Inconvenience has arisen from it.

Those who have the Disease in the slightest Manner, without any Appearance of Eruption, but on the inoculated Part, are soon permitted to go about their usual Affairs; and many Instances have happened of very industrious poor Men, who have instantly returned to their daily Labour, with a Caution not to intermix with those who have not had the Distemper, and with Directions to take two or three Times of the Purge already directed, or as many Doses of *Glauber's Salts*. Those who have it in a greater Degree are confined somewhat longer; and a
very

very mild Laxative is now and then exhibited, if there is the least Disposition to Costiveness.

When the Maturation is completed, and it is evident there is nothing farther to fear from the Distemper, he allows his Patients gradually to change their Course of Diet; recommending to them all to return to their ordinary animal Diet with much Caution and Restraint upon their Appetites, both in Respect to Food and fermented Liquors.

There are some, but not many Cases, wherein the Incisions continue for some Time to discharge a purulent Matter: In these Instances it is sufficient to cover the Place with the *White Cerate*, or any other mild emplastic Substance, which may at once prevent the Linen from adhering to the Sore, and defend it from the Air; giving, besides, such gentle Purgatives, and proper Alteratives, as particular Exigencies may require.

Hitherto has been described the usual Progress of the Small-Pox from the Inoculation. There are, however, Deviations from this Course, and indeed not a few; some of the most material of which, as they embarrass the inexperienced, and create a real Difficulty, as well as Apprehensions of Danger; it seems necessary to describe the Means that Experience has suggested to remove these Symptoms, or the Doubts respecting the Event.

1. Great Sickness, though it very rarely happens, sometimes gives great Trouble, coming on accompanied with Vomiting during the Eruptive State. For this, it is always necessary first to clear the Stomach, by drinking plentifully of warm Liquids to promote the Vomiting: or perhaps more properly, by giving one Grain of *Emetic Tartar* to an Adult, mixed with ten Grains of *Compound Powder of Crabs Claws*, lessening the Dose for very young and weak Subjects. If no Stools should follow, and the Sickness should remain, a gentle Laxative almost certainly procures a Respite, and the Appearance of the Eruption removes the Complaint entirely.

2. A Deviation, of still more Consequence, often, though not always accompanied with great Sickness, is an erysipelatous Efflorescence. This, if it shews itself on the Skin partially, and here and there in Patches, is not very alarming, and soon wears off. But sometimes the whole Surface of the Skin is covered with a Rash, intimately mixed with the variolous Eruption, and so much resembling the most malignant Kind of the Confluent Small-Pox, as scarcely to be distinguished from it: And indeed some Cases of this Sort have happened, where being accompanied with *Petechiae* and livid Spots, he has been much alarmed; not being able to distinguish, though assisted by
Glasses,

Glasses, whether what he saw was an inoffensive Rash, or Tokens of the greatest Malignity. Very strict Attention, however, enabled him to determine the Difference clearly.

The real and essential Difference then is to be gathered from the concomitant Symptoms. In the erysipelatous or variolous Rash, there is not so much Fever, nor is the Restlessness, or Pain of the Head or Loins so considerable; neither is there that general Prostration of Strength, which is almost a never-failing Attendant on a confluent Small-Pox, especially when accompanied with such putrid Appearances. Besides, upon a careful Examination, there may sometimes be discerned a few distinct Pustules, larger than the rest, mixed with the Rash, which are indeed the real Small-Pox. In these Cases the Patients are ordered to refrain from cold Water, or any thing cold, and to keep within Doors, but not go to Bed. If any Sickness yet remains, a little White-Wine Whey, or other moderate Cordial, is advised: And this Method has been so successful, as to prevent any alarming Complaint. After two or three Days the Skin, from a florid, changes to a dusky Colour, a few distinct Pustules remain, and advance properly to Maturation, without any further Trouble.

It should also be observed, that Rashes of this Kind frequently happen during the Preparation, (whether owing to the Regimen, or Medicine, or both,) and cause the Operation to be postponed: but in such Cases they are apt to return at the Time of the Eruption of the Small-Pox.

In general, as has been said, the Symptoms preceding the Eruption commence at the End of the seventh, or on the eighth Day, inclusive from the Operation: but it often happens, that they appear much sooner, and sometimes much later. Instances have been, wherein the Disease has ensued so suddenly after Infection, and with so little Complaint or Uneasiness, that the whole Affair has been terminated, Purges taken, and the Patient returned Home, perfectly well, in a Week's Time; before others, inoculated at the same Time, from the same Patient's Matter, and under the same Circumstances, have begun to complain. In this Case, the inoculated Parts shew early certain Marks of Infection; sometimes on the very next Day, or the Day after, when the Incision will often appear considerably inflamed and elevated. The Patient, about this Time, frequently makes some of the following Complaints, viz. Chilliness, Itchings, and small pricking Pains in the Part, and sometimes on the Shoulder, Giddiness, Drowsiness, and a slight Head-ach, sometimes attended with a feverish Heat, but often without any: The Account they themselves give of their Feelings is, in some,

as if they had drank too much, and in others, as if they had caught a Cold. These Complaints seldom last twenty-four Hours, often not so long, and with frequent Remissions, and never rise to a Degree that requires Confinement. The Inflammation upon the Arm at the Time of the Complaints advances apace, and feels hard to the Touch; but upon their wearing off, the inflamed Appearances gradually lessen, and the Part dries to a common small Scab; the Skin, that was before red, turns livid, and the Party is quite well. In some Instances these Symptoms attack much later; even on the seventh or eighth Day, when an Eruption might be expected in Consequence of them, yet none appears; but the Arm gets well very soon, and the Disease is at an End.

In this irregular Sort of the Disorder there have been, however, some Examples, where a few Eruptions have appeared, and probably in Consequence of the Inoculation; yet the Pustules have not looked like the true Pocks, nor maturated like them, nor lasted longer than three Days; about which Time they, for the most Part, have dried away.

Dr. D. finding it difficult to describe the Variety and Irregularity of Symptoms that occur in this short Way of having the Distemper, delineates some Cases, by Way of illustrating the Matter more to the Reader's Satisfaction.

When Subjects of this Sort first occurred to his Practice, he doubted whether they were quite secure from any future Attacks; and in order to try this Matter, he inoculated them a second Time, and made them associate with Persons in every Stage of the Disease, and try all other Means of getting infected, yet without a single Instance of producing the Disorder: So that he now makes no Scruple of pronouncing them perfectly safe.

Another Irregularity deserving Notice is, that sometimes, upon the Abatement of the Fever, and other Symptoms, after the Appearance of several Pustules, and when the eruptive State of the Disease seems perfectly completed, it nevertheless happens that fresh Eruptions come out, and continually do so daily, for four, five, or even six Days successively; preceded sometimes by a slight Pain in the Head, though more frequently they appear without any new Disturbance. These are generally few in Number, short-lived, and seldom come to Maturity. But he has seen four Cases, in each of which, after a Cessation of Complaints, and an Appearance of a few Pustules, the eruptive Stage was thought to be over, yet in two or three Days a fresh Fit of Fever has come on, and, after a short Illness, a Quantity of new Pustules has broke

broke out, far exceeding the first Number, and these remained, and matured completely.

Some of his own Patients, and, as he has been credibly informed, of others, have had considerable Eruptions after they returned home; which have probably given Occasion for the Reports of several having had the Disease again in the natural Way, after Inoculation. But that these Reports are ill-grounded, will appear from this Observation, to wit, that in all the Cases of this Sort, which have occurred in his own Practice, or, as far as he can learn, in that of others, the second, or latter Crop of Pustules, has always happened within the Time usually allowed for the Progress of the Small-Pox from Inoculation, and before the Inflammation on the Arm ceased, and sooner than they could be supposed to be produced by Infection taken in the natural Way: And whenever it has happened, it has been to Persons in whom, after a slight Eruption, and Abatement of Symptoms, the Disease has prematurely been judged to be quite over.

It will doubtless be asked, how Cases of this Kind should ever happen among those who return home as cured? To which he answers, That it is no unusual thing for industrious Men, after a slight Eruption, and Cessation of all Complaints, to ask Leave to return home to their Occupations and Families; and where it has been thought that no Danger would accrue to others, their Request has been often granted: for the Physician no more than the Patient can foresee when these Accidents shall follow; but it may be observed here, that in all these Cases of his own Knowledge, very repellent Medicines being used in the Beginning, and a more generous Diet, or greater Exercise afterwards, seem to have contributed to this secondary Eruption.

Dr. D. comes next to consider the Consequences that follow this very cooling and repelling Method, and how far the Patient's future State of Health may be affected by a Practice so new and opposite to established Theory. He needs not, he thinks, say how much it has been thought right, in most or all eruptive Complaints, especially in the Small-Pox, to forward, by every gentle Means, the Efforts of Nature in producing an Eruption: And, on the contrary, how dangerous to check it, either by cold Air, cold Drink, or any considerable Evacuations; or that the Use of warm Diluents, therefore, and the lying in Bed, especially if the Fever and Symptoms run high, or at least confining them to the House, have been generally approved and recommended for the Purpose. But when a Practice so foreign to this, and almost
totally

totally different, is inculcated, it is no Wonder if Mens Minds are alarmed, and those Evils expected that were supposed to be the unavoidable Consequences of it.

Experience, however, and Instances of so many Thousands succeeding by this Method, without any considerable bad Effects from it, either immediate or remote, are irresistible Arguments for its Support and Justification, and the best Proof of its Utility and Safety: he says, *without any considerable bad Effects*, as, in reality, he never saw any that deserved that Name, if compared with what sometimes follow the natural Small-Pox, or frequently happen after the old Method of Inoculation.

Every one who has any Share in this Practice, according to the common or old Methods, will allow, that after passing through the Disease in a very favourable Manner, Patients (Children especially) were frequently liable to Abscesses in the Arm-pits, and other Parts, tedious Ophthalmies, and troublesome Ulcerations in the Place of Insertion; which, though not to be foreseen or prevented, yet frequently give more Pain and Vexation to the Patients, and Trouble to the Operator, than the Disease itself had done: Whereas, he can aver, that of those treated in the cool Way, or this new Method, but one among more than Fifteen Hundred had so much as a Boil in the Axilla, and that was a Child who had an Issue in the same Arm, at that Time dried up; and that he has only seen so very small superficial Boils in others near the Place of Insertion, seeming rather to be occasioned by an Irritation from the Discharge, than from any other Cause, and were soon healed without any Trouble. In a few Instances also there has been a Slough in the incised Part, forming a Sore of a short Duration; but not one Instance of an Ulcer of any Continuance. He has never had an Example of one Ophthalmy from this Practice: in a few, the Coats of the Eye have been a little inflamed, but soon became clear, without any Means used. So that these Complaints, formerly so grievous and frequent, are, by the new Method, much reduced.

Discoveries in Physic, as in other Sciences, are at first liable to Censure and Opposition; and as the present System of Inoculation is of so extraordinary a Kind, it would not be strange, if a greater Portion of both, than usual, should fall to its Share. Accordingly, as no Charge of Fatality or bad Effects after Recovery could be produced, Recourse has been had to other Measures, to calumniate and discredit the Practice, too ridiculous to be recited, and deserving no more than
this

this, general Answer; that from the strictest Observation and Enquiry Dr. D. has been able to make, those inoculated in this Way have continued to enjoy as good a State of Health as their Neighbours; nay, many of them have thought their Constitutions better after than before.

Another Charge against this Method is, that some have had the Distemper afterwards in the natural Way. What he has said about Anomalies in the Small-Pox, will, he believes, sufficiently account for the Appearances which have occasioned those false Reports; and if that does not satisfy, he can only add this positive Declaration, that nothing of the Kind has ever happened to any Patient by him inoculated; and he does firmly believe, no one ever had, or can have, the Distemper a second Time, either in the natural Way, or from Inoculation.

He comes next to the Effects of this Treatment, applied to the natural Small-Pox. The very great Relief Persons under Inoculation experience from fresh Air, cold Water, and Evacuations by Stool, determined him, he says, to make Trial how far the like Treatment might be useful, to those seized with the natural Small-Pox; more especially in such Cases, where, from the Violence of the Symptoms, a confluent Kind was justly to be apprehended.

If the Attack of the cold Fit be pretty severe, and the subsequent Fever unusually high; if a Nausea and Vomiting succeed, together with great Pains in the Head, Back, and Loins, especially the last; if a Delirium, great Restlessness, disagreeable Taste in the Mouth, and a peculiar Smell in the Breath, or even if several of those Symptoms are observed, the Small-Pox may reasonably be expected; and if, upon Inquiry, which should always be made, it appears, that the Patient has been in the Way of Infection, there will be little Reason to doubt it.

It may be objected, that, notwithstanding the closest Attention and Inquiry, Symptoms of the like Kind may precede Fevers of other Kinds. To which he answers, that some such Cases, though few, have happened; and the Treatment he is about to recommend has been practised not only without Prejudice to the Patient, but manifestly to his Benefit.

But waving, for the present, all Considerations respecting the Treatment of Fevers in general, he only relates what has occurred to him in Respect to the Natural Small-Pox.

In several Instances, where the Symptoms and other concurring Circumstances induced him to think the Small-Pox was at hand, he has directed the like Management as he recommends to inoculated Patients. He has been called also to others at the Time of Eruption, where some Pustules having already appeared,
made

made the Matter clear: and in every Case of this Kind he has endeavoured to get the sick Person into the open Air, has generally given the mercurial and antimonial Pill, and directed a Laxative to be taken some Hours after it, to procure three or four Stools; which Method he has more particularly enjoined to be repeated where the Kind has appeared to be bad, and little or no Relief found from the partial Eruption, and the Symptoms continuing to portend great Danger. The same Method he has followed during the whole eruptive Fever, intending thereby to abate its Violence, to check the Eruption, and prevent the Conflux and the Danger. The Success of this Practice has hitherto exceeded his Expectations. Among those who have been thus treated by himself not one has died, though the Number be about Forty.

The open Air immediately abates the Heat over the whole Surface of the Skin, which, though before intensely hot, soon feels not much warmer than that of one in Health. The Pulse, from strong, full, and quick, becomes less hard and full, but continues quick, and sometimes intermits; which, however alarming it may seem, is no dangerous Symptom. The Pain in the Head is always relieved, but that in the Back and Loins does not abate in Proportion; and though it costs no little Pain and Trouble to persist in moving Abroad under such Circumstances, attended, for the most Part, with great Lassitude; yet the Patients are sensible of the Benefits they receive; and entertaining a good Opinion of the Practice, commonly behave with great Resolution, and, in general, think themselves stronger.

The Effects of the Medicines are usually these. If there has been much Sickness at Stomach, Vomiting frequently succeeds the Use of the Pill; when the Patient should drink plentifully of warm Diluents, and not go Abroad till the Fatigue is over. This, and the succeeding Stools abate, for the most Part, the feverish internal Heat, Thirst, Sickness, and Pains. They complain then of being low and faint, but a Disposition to receive Nourishment hourly increases; and they drink Mutton or Chicken Broth, Milk Pottage, or Tea. Sleep likewise now comes on spontaneously; but he forbids it till Bed-time at Night.

Hence it appears, that the Fever preceding Eruption, and its worst concomitant Symptoms, are often greatly mitigated by this Practice; and it may be added, that the Eruption is most certainly retarded; that is, it does not appear so soon after the Attack, nor comes out so precipitately, when it has begun to appear, as it seemed likely to have done if the natural

tural Progress had not been interrupted; an Effect which, however dangerous it may have been thought, clearly shews the Utility of the Practice; since Experience manifests, that the later the Eruption shews itself after the Beginning of the Disease, and the slower it comes out, the more mild and favourable is the Event.

Hitherto of the Disease only in its eruptive State: After which, unless some pressing Symptoms call for immediate Relief, it is the general Practice to wait till Maturation comes on.

In this neglected Interval to the Accession of the Fever of Maturation, he ventures in general to recommend the same mercurial antimonial Medicine as he prescribed in the eruptive Fever, to be repeated at proper Intervals, till the Maturation advances, when it must certainly be discontinued. These Circumstances can be regulated only by those who attend, according to the Urgency of the Symptoms, and the Strength of the Patients: A Cup-full of the following Apozem should, if necessary, be now and then taken after the mercurial Medicine, often enough to produce three or four Stools a Day, especially if the Patient be costive.

R. Cremor. Tart. ʒij. Mann. ʒj. dissolv. in Decoct. Hordei vel Pectoral. ℥ij.

How far it may be safe or adviseable for the Patients to venture into the open Air during the Stage of this Disease, he pretends not to say; but that they will be certainly both refreshed and invigorated, by being kept out of Bed as much as they can bear, without being over-fatigued; and by fresh Air let in sometimes through an open Window.

As the Violence of the eruptive Fever, and its attendant Complaint, must exhaust the Strength and Spirits, they should in this Interval be recruited by moderate Quantities of the above-mentioned proper Nourishment, and, if Occasion requires, with cordial and anodyne Medicines, to be the better able to encounter and bear the Pain and Fever, which will most certainly happen as Maturation advances.

For the best Method of treating the Small-Pox in the State of Maturation, he refers to the eminent and learned Practitioners who have professedly written about it, only taking Liberty to recommend one Medicine he has found to abate Heat and Thirst, and afford a pleasing Refreshment.

R. Spir. Vitriol. ten. ʒj. Spir. Vitriol. dulc. ʒij. misce. Hujus ʒss. commisceatur cum Decoct. Hordei vel Decoct. Pectoral. ℥ij. vel ℥ij. de quo bibat Aeger ad libitum.

He thinks it necessary to declare, that nothing which he has said is meant to relate to Practice in the *Bleeding* or *Purple Small-Pox*; though cold repellent Medicines may perhaps deserve to be tried in these hitherto fatal Cases, provided it can be done early; but the mercurial evacuating Course seems quite improper.

Of the CHICKEN, or SWINE-POX.

DR. W. HEBERDEN believes the *Chicken-Pox* and *Swine-Pox* to differ only in Name; they occasion so little Danger or Trouble to the Patients, that Physicians are seldom sent for to them, and have therefore very few Opportunities of seeing this Distemper. Hence it happens that the Name of it is met with in very few Books, and hardly any pretend to say a Word of its History.

But though it be so insignificant an Illness, that an Acquaintance with it is not of much Use for its own Sake, yet it is of Importance on account of the *Small-Pox*, with which it may otherwise be confounded, and so deceive the Persons, who have had it, into a false Security, which may prevent them either from keeping out of the Way of the *Small-Pox*, or from being inoculated.

These Pocks break out in many without any Illness or previous Sign: In others they are preceded by a little Degree of Chillness, Lassitude, Cough, broken Sleep, wandering Pains, Loss of Appetite, and Feverishness for three Days.

In some Patients he has observed them to make their first Appearance on the Back, but this perhaps is not constant. Most of them are of the common Size of the *Small-Pox*, but some are less. He never saw them confluent, nor very numerous. The greatest Number which he ever observed, was about twelve in the Face, and two hundred over the rest of the Body.

On the first Day of the Eruption they are reddish. On the second Day there is at the Top of most of them a very small Bladder, about the Size of a Millet Seed. This is sometimes full of a watery and colourless, sometimes of a yellowish Liquor, contained between the Cuticle and Skin. On the second, or, at the farthest, on the third Day from the Beginning of the Eruption, as many of these Pocks, as are not broken, seem arrived at their full Maturity; and those

those which are fullest of that yellow Liquor, very much resemble what the genuine Small-Pox are on the fifth or sixth Day, especially where there happens to be a larger Space than ordinary occupied by the extravasated Serum. It happens to most of them, either on the first Day, that this little Bladder arises, or on the Day after, that its tender Cuticle is burst by the accidental rubbing of the Cloaths, or by the Patient's Hands to allay the Itching, which attends this Eruption. A thin Scab is then formed at the Top of the Pock, and the Swelling of the other Part abates, without its ever being turned into Pus, as it is in the Small-Pox. Some few escape being burst, and the little Drop of Liquor contained in the Vesicle at the Top of them, grows yellow, and thick, and dries into a Scab. On the fifth Day of the Eruption they are almost all dried and covered with a slight Crust. The Inflammation of these Pocks is very small, and the Contents of them do not seem to be owing to Suppuration, as in the Small-Pox, but rather to what is extravasated immediately under the Cuticle by the serous Vessels of the Skin, as in a common Blister. No Wonder, therefore, that this Liquor appears so soon as on the second Day, and that upon the Cuticle being broken it is presently succeeded by a slight Scab: Hence, too, as the true Skin is so little affected, no Mark or Scar is likely to be left, unless in one or two Pocks, where, either by being accidentally much fretted, or by some extraordinary Sharpness of the Contents, a little Ulcer is formed in the Skin.

The Patients scarce suffer any thing throughout the whole Progress of this Illness, except some Languidness of Strength, and Spirits, and Appetite, all which is probably owing to the confining of themselves to their Chamber.

He saw two Children ill of the Chicken-Pox, whose Mother chose to be with them, though she had never had this Illness. Upon the eighth or ninth Day after the Pocks were at their Height in the Children, the Mother fell ill of this Distemper then beginning to shew itself. In this Instance the Infection lay in the Body much about the same Time that it is known to do in the Small-Pox.

Remedies are not likely to be much wanted in a Disease attended with hardly any Inconvenience, and which in so short a Time is certainly cured of itself.

The principal Marks by which the Chicken-Pox may be distinguished from the Small-Pox, are,

1. The Appearance on the second or third Day from the Eruption of that Vesicle full of Serum upon the Top of the Pock.

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2. The

2. The Crust, which covers the Pocks on the fifth Day; at which Time those of the Small-Pox are not at the Height of their Suppuration.

Foreign medical Writers hardly ever mention the Name of this Distemper; and the Writers of our own Country scarce mention any thing more of it than its Name. *Morton* speaks of it, as if he supposed it to be a very mild genuine Small-Pox. But these two Distempers are surely totally different from one another, not only on Account of their different Appearances abovementioned, but because those, who have had the Small-Pox, are capable of being infected with the Chicken-Pox; but those who have once had the Chicken-Pox are not capable of having it again, though to such, as have never had this Distemper, it seems as infectious as the Small-Pox. He wetted a Thread in the most concocted pus-like Liquor of the Chicken-Pox which he could find, and after making a slight Incision, it was confined upon the Arm of one who had formerly had it; the little Wound healed up immediately, and shewed no Signs of any Infection.

From the great Similitude between the two Distempers, it is probable, that, instead of the Small-Pox, some Persons have been inoculated from the Chicken-Pox, and that the Distemper which has succeeded has been mistaken for the Small-Pox by hasty or unexperienced Observers.

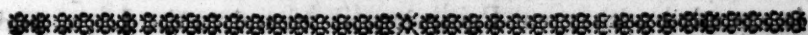
There is sometimes seen an Eruption, concerning which he has been in Doubt, whether it be one of the many unnoticed cutaneous Diseases, or only, as he is rather inclined to believe, a more malignant Sort of Chicken-Pox.

This Disorder is preceded for three or four Days by all the Symptoms which forerun the Chicken-Pox, but in a much higher Degree. On the fourth or fifth Day the Eruption appears, with very little Abatement of the Fever; the Pains likewise of the Limbs and Back still continue, to which are joined Pains of the Gums. The Pocks are redder than the Chicken-Pocks, and spread wider, and hardly rise so high, at least not in Proportion to their Size. Instead of one little Head or Vesicle of a serous Matter, these have from four to ten or twelve. They go off just like the Chicken-Pox, and are distinguishable from the Small-Pox by the same Marks; besides which the Continuance of the Pains and Fever after the Eruption, and the Degree of both these, though there be not above twenty Pocks, are, as far as he has seen, what never happen in the Small-Pox.

Many Foreigners seem so little to have attended to the peculiar Characteristics of the Small-Pox, particularly the Length of Time which it requires to its full Maturation, that we may the

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the less wonder at the prevailing Opinion among them, that the same Person is liable to have it several Times. *Petrus Bo-rellus (Hist. & Obs. Rar. Med. Phys. Centur. iii. Obs. 10.)* records the Case of a Woman, who had this Distemper seven Times, and catching it again died of it the eighth Time. It would be no extravagant Assertion to say, that here in *England* not above one among Ten Thousand Patients is pretended to have had it twice; and wherever it is pretended, it will always be as likely that the Persons about the Patient were mistaken, and supposed that to be the Small-Pox, which was an Eruption of a different Nature, as that there was such an extraordinary Exception to what we are sure is so general a Law.



Of the ERYSIPELAS, or ST. ANTHONY'S FIRE.

AN ERYSIPELAS is an *eruptive* Fever, from which no Part of the Body is exempt; but it chiefly attacks the Face. It begins with Chillness and Shivering, and other common Symptoms of a Fever. The Part affected swells a little, with great Pain, and intense Redness, and is beset with a vast Number of little Pustules; which, when the Inflammation is increased, are converted into *small Blisters*. SYDENHAM.

This Disease has great Affinity with a *pestilential Fever*; for it begins suddenly with *great Shaking*, Heat, Loss of Strength, violent Pain in the Back and Head; to which may be added Vomiting, and a *Delirium*; (but this is to be understood of the worst Sort.) On the *third* or *fourth Day* the malignant Matter is thrown out on the Surface of the Body, and then the Symptoms a little abate. There is often a Pain, Redness, and Tumour in the *inguinal Glands*, from whence the Matter of a *hot fiery Quality* descends to the Feet. If the Head is attacked, the *parotid Glands* are affected; if the Breasts, the *axillary*. The *mammary* and *axillary Glands* are not seldom ulcerated, and affect the Joints with a virulent Corruption. And likewise, as in the Plague, there is nothing more dangerous than the Return of the *expelled Matter* back from the Surface of the Body to the inward Parts.

In some, especially young Persons, the Matter is not so virulent, nor the Fever so great; the Glands remain unaffected, and the Eruption happens on the *second Day*. This is not at all dangerous.

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An *Erysipelas* is either *true* or *simple*, or *spurious*, which is likewise called *scorbutic*. The *simple* only affects the Surface of the Skin, and readily yields to proper Remedies. But the *spurious* is more chronic, is harder to cure, and often degenerates into malignant Ulcers. Besides, this Disease is sometimes *idiopathic*, or a primary Disease; and sometimes *symptomatic*, or a secondary one. For instance, in the *Anasarca*, the *Ascites*, the yellow and black Jaundice, a *symptomatic Erysipelas* sometimes supervenes, and quickly kills the Patient. It is sometimes complicated with Wounds of the nervous Parts, particularly the Skull and its Membranes; as also with Fractures of the Bones, and then it is dangerous.

If it seizes the Foot, the Parts contiguous will shine; if it is attended with great Pain, it will ascend to the Legs, and will not bear to be touched.

If it attacks the Face, it swells and looks red, and there are Plenty of *watery Vesicles*. The *Eyes* are closed up with the Swelling; there is a Difficulty of Breathing; the *Fauces* and *Nostrils* are very dry, often attended with a Numbness and Drowsiness: Hence an *Inflammation of the Brain* is to be feared, or a *mortal Lethargy*.

If it affects the Breasts, they swell, and grow almost as hard as a Stone, with exquisite Pain, and they are very apt to suppurate. There is a most violent Pain in the *axillary Glands*, in which an *Abscess* is often formed.

In Children the *umbilical Region* generally suffers, with a fatal Event.

If in a *Day or two* the Tumor subsides, the Heat and Pain cease, the *rosy Colour* turns *yellow*, the Cuticle breaks and falls off in Scales, the *Danger is over*. When the *Erysipelas* is large, deep, and falls upon a Part of exquisite Sense, the Patient is not very safe. But if the *red Colour* changes into *black* and *blue*, it will end in a *Mortification*. If the *Inflammation* cannot be discussed, it will suppurate and bring on *Fistulas* and a *Gangrene*. When the Patient is *cachochymic*, the Legs will sometimes swell three Times as big as the natural Size, and is cured with great Difficulty. Those who die of this Disease, die of the Fever, which is generally attended with Difficulty of Breathing, sometimes a *Delirium*, sometimes with Sleepiness; and this in seven Days Time. HOFFMAN.

Let the Patient's Diet be only *Water-gruel*, or *Barley-broth*, with *roasted Apples*. If he drinks any Beer, let it be very small; and let him keep out of Bed some Hours in a Day.

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Take away nine or ten Ounces of Blood, and the next Morning let the Patient take the common purging Potion. SYDENHAM.

It is a constant Rule among Practitioners, in all *acute and eruptive Fevers*, to keep the Body in a *gentle Diaphoresis*. The same Method is to be observed in this Disease.

If the Patient is *plethoric*, addicted to *spirituous Liquors*, and more especially if the Disease attack the Head, *Bleeding* is necessary.

It will be safest to avoid external Applications, unless a Powder made of *Elder Flowers* and *Liquorice* sprinkled on the Part. HOFF. Or *Lime Water*, mixt with a fourth Part of *Spirit of Wine* and *Camphire*, dipping a Linen Cloth in it several Times doubled, and applying it hot to the Part. HEISTER. Or the following:

1. R. *Farin. Fabar. Flor. Sambuc. an. Manip. j. Rad. Irid. Flor. ʒij. Cerufs. ʒiij. Camphor. ʒj. Fiant species saccula immittendæ & applicandæ.* JUNKER.

An Infusion of *Scordium*, *Elder-Flowers*, and *Fennel-Seed*, drank in the Manner of Tea, is useful to expel the morbid Matter.

2. R. *Rad. Althææ & Lilior. an. ʒj. Malv. Sambuc. Verbasc. flor. Chamæmel. Melilot. summitat. Hyperic. & Centaur. minor. an. m. j. Sem. Lin. Fænugræc. an. ʒiss. Coq. q. s. Aq. ad ʒiij. Coletur liquor & tempore usus adde singulis libris decocti Sp. Vin. ʒiij.*

Let Pieces of Flannel be dipt in this Decoction, then squeeze them, and apply them hot to the Part affected. After this Fomentation, use the following Mixture:

3. R. *Sp. Vini. ʒss. Theriac. Androm. ʒij. Pulv. Pip. long. & Caryophil. an. ʒij. F. Mixtura.*

Let Cap-Paper, wetted with this Mixture, be applied to the Part affected. This *Allen* experienced to be excellent in the Course of twenty Years Practice.

If the Disease does not yield to the *first Bleeding*, let it be repeated: If that will not do, let it be reiterated twice more; one Day being interposed between.

On the Days free from Bleeding, prescribe a *Clyster* of *Milk* and *Syrup of Violets*; as also the *cooling Emulsion* and *Julep*. SYDENHAM.

When the Symptoms are moderate, the following Mixture is excellent.

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4. R. *Rob. Sambuci*, ℥j. *Corn. C. usti* ℥j. *Aq. Alex. simp.*,
℥iv. *M. F. Hausius*.

In more inflammatory Cases, add xij Grains of pure *Nitre*.
HOFF.

Some think Purges not necessary in the Beginning of this Disease; but in an *Erysipelas* of the Head, when it affects the Brain with a *Coma* and a *Delirium*, either the Case is desperate, or *Cathartics* will succeed. However, first apply *Blisters* to the Neck, then,

5. R. *Tinctur. Sacr.* ℥ij. *Syr. de Rhamno Cathartic.* ℥j *M.*

If this proves too weak,

6. R. *Pil. ex Colocynth. simp. gr. xv. in Aq. Alex. s. solut.*
Syr. de Rhamno cathartic. ℥ss. *M. FRIEND.*

If, after all, the Tumor remains, and begins to turn livid; if the Pain lies deep and seems to reach the *Periosteum*, and the Part has a Tendency to ulcerate, then it will be proper to promote a Suppuration; at the same Time endeavouring to stop the Progress of the Putrefaction. For this Purpose the common *Plaster* will be proper, with a sufficient Quantity of *Camphire* and *Saffron*. When there is Matter that lies deep, the Tumour is to be opened with a Lancet, and the Pus is to be got out by Degrees, not all together.

When the Abscess is in a glandulous Part, and has degenerated into a fistulous Ulcer, after evacuating the Matter, a balsamic Liquor is to be injected, made of Tincture of *St. John's Wort*, Tincture of *Balsam of Peru*, choice *Myrrh*, and a few Drops of the Spirit of Turpentine. [Or the Traumatic or Frier's Balsam.]

When there is a Mortification coming on, give Things inwardly that resist Putrefaction, as *Nitre* and a little *Camphire*, [or rather the *Peruvian Bark*.] Outwardly apply a Mixture of Lime Water, camphorated Spirit of Wine and Vinegar with Litharge. As also Tincture of *Myrrh*, [or of *Myrrh* and *Aloe*.] made pretty hot, with a Linen Cloth doubled, and often repeated.

In the Scarlatine *Erysipelas*, which continues for some time, it will be proper to give gentle Laxatives and Purifiers of the Blood, with Diaphoretics. After the Body has been opened for some Days, give *Diuratics* and *Diaphoretics*, alternately, for a considerable Time; and for common Drink, order a temperate Decoction of mucilaginous Woods and Roots with Bitters; particularly Succory Roots, Dandelion Roots, and Raisins. HOFFMAN.

Of

Of the SYNOCHUS, or Continual FEVER without Remission.

THIS Fever, by some called SYNOCHA, by others a CONTINUAL FEVER, is an *acute sanguineous Fever*, because it is raised by a Congestion of the Blood, chiefly in the nervo-membranous Parts; which, unless timely discussed by the Benefit of Nature and Art, produces a *fatal Inflammation*.

It begins in some, with a mild Sense of Cold, and is soon attended with very grievous Symptoms, continuing without Remission till the critical Time, with a great and full Pulse. If the Blood is forced to the *Head*, for it always affects one Part more than another, the Face will swell, the Eyes will be red and full of Tears: There is a Pain in the Head with a Pulsation of the temporal Arteries, a Vertigo, a Sleepiness, Torpor, or a Raving. When the Blood rushes impetuously into the *Ventricles of the Heart* and *Pulmonary Vessels*, causing a Distension therein, then the Breathing will be thick and difficult, with a Straitness of the Breast, as also an Anxiety and Palpitation of the Heart, attended with a Loss of Strength, and a Dejection of the Mind. A *slight Inflammation* of the *Oesophagus*, with a spastic Stricture of the Glands of the Fauces, will cause Thirst, Dryness, and Blackness of the Tongue. If the Inflammatory Congestion happens in the *Stomach*, it will create a Nausea, a Reaching to vomit, and sometimes a Hiccup. If in the *Intestines*, there will be Inflations grievously exasperating the Disease, together with a Costiveness, or an Ejection of foetid Excrements. If in the Vessels proceeding from the *Meseraic Arteries* and *Vena Portæ*, there will be a fixed Pain at the first *Vertebra* of the Loins. If in the Membranes of the *spinal Marrow*, the Patient will tumble and toss, and lie irregularly in Bed, and will have a Torpor and Languor of the Limbs, sometimes attended with Convulsions.

But all these Symptoms never happen to all, nor is their Violence constantly alike. Some distinguish this *Fever* into the *simple* and *putrid*. The *first* is caused by a Congestion of good Blood in improper Places. But when it attacks Persons full of impure Juices, who have been weakened by a preceding Disease, constant Anguish of the Mind, excessive Coition, or inordinate Living, the Symptoms are much more grievous, with Loss of Strength, and the Disease will continue till the fourteenth or the twenty-first Day, sometimes with Eruptions, dusky or black Spots, with immediate Danger.

There

There is likewise an *epidemic Synochus*, which makes its Onset with the same Symptoms as the former, chiefly in the Autumn and Winter. If it will be well managed it will turn to a *catarrhal Fever* after the fourth Day; in which the preternatural Heat will last all Night till Break of Day, with catarrhal Defluxions from the Head, a Running at the Nose, and a moist or dry cough till it disappears.

If the Cause is not violent, this Disease will often disappear merely by the Benefit of Nature, on the fourth, seventh, or eleventh Days, with a large Sweat or Bleeding at the Nose; and, though very seldom, by a Flux of the Belly, unless it has something of Malignity.

When the Disease is rightly managed in the Beginning, that is, on the first, second, and third Day, with Bleeding and cooling Things, and gentle Diaphoretics, it will end on the fourth. But if the Bleeding is omitted, or is too little, it may continue till the fourteenth or seventeenth Day, with the more grievous Symptoms, as also a *Delirium*; but it will terminate at last by a Sweat or Looseness.

When it proves fatal, the Patient generally dies of a sphaculous Inflammation of the Brain, or other Parts, as the Stomach or Intestines.

The *Intentions of Cure* are, 1. To free the vital Parts from too great a Congestion of Blood, which will either disperse a slight Inflammation, or prevent a great one. 2. To appease the Exaltation of the Blood and the spastic Affection of the System of the Nerves. 3. To discuss the stagnating and corrupted Fluids, and to restore a free Circulation of the Blood, chiefly to the Surface of the Body.

To answer the *first Intention*, the Patient must lose Blood freely. Then the Orgasm of the Blood must be appeased with *Diluents*, *Acids*, and *nitrous Compositions*. And certainly if any Disease requires Acids and the Juice of tart Fruits, it is this, such as Tamarinds, and the Juices of Currants, Oranges, and Lemons.

1. R. *Aq. Fontan.* ℞ij. *Aq. Rosar.* *Sacchar. Alb.* *Succ. Aurant.* an. ʒj. *Vel loco hujus, Spir. Vitriol. gut. xx.*

The Jelly of Hartshorn made pretty thin with the Addition of Orange Juice, Sugar and Rose Water, will make a proper demulcent and cooling Drink; or Whey turned with Juice of Lemons or Oranges. Acids are also very proper in a malignant putrid *Synochus*.

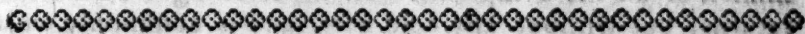
To direct the Motion of the Blood to the Surface of the Body, gentle Diaphoretics will be proper, such as the bezoardic

ardic or absorbent Powders, sometimes alone, and sometimes with Citron Juice. Likewise Infusions of the Leaves of *Veronica*, *Scordium*, or *Carduus Benedictus*, with Fennel-seed, drank in the Manner of Tea, especially to promote Sweating on the fourth Day, when the Disease is like to terminate with this salutary Excretion.

It is observable, that no Fever more universally requires Bleeding than this, and that freely and soon, Consideration being had to the Strength, Sex, Age, Temperament, Largeness of the Pulse and Blood-Vessels of the Patient; which must be repeated the next Day, unless any thing forbids it. When the Face is tumid, the Eyes red, and a few Drops of Blood fall from the Nose, that Hæmorrhage must be promoted by Scarification, or thrusting in a Straw, that a *Delirium* may be prevented or cured. The Opening of the sublingual Veins is dangerous, because a fatal Hæmorrhage has ensued.

It will be necessary, whether this Fever be *simple* or *putrid*, to keep the Body open; for which Purpose a Clyster made of Whey, Honey, Oil of Sweet Almonds, with a little Nitre and Salt, will be proper; for by this Means the Stricture of the intestinal Fibres will be relaxed, and Flatus's will be discharged, which distend the Colon. In the Decline of the Disease, when there are apparent Signs of Coction in the Urine, a Laxative of Manna and Cream of Tartar, or Cassia and Rhubarb, will be of great Use. But strong Purges and Emetics are bad, for these produce a fatal Inflammation.

All spirituous Liquors, and Drinks actually hot, are bad, as well as a hot Regimen; for they exasperate the Symptoms. A constant Sleepiness may be cured by applying Vinegar, *Sal Ammoniac*, and Juniper-Berries, to the Feet. A Coction in the Urine is the most certain Sign of Recovery. Miliary Pustules supervening to this Disease, is a very bad Omen.
HOFFMAN.



Of the BILIOUS FEVER.

THE *Bilious* is a Kind of a *burning Fever*. It begins with intense Heat, Thirst, Anguish, and Inquietude. There is likewise a Vomiting, or a perpetual Reaching to vomit, with frequent bilious Stools, a Coldness of the Extremities, internal Heat, and cardialgic Anxiety. This *Fever* is either *acute*, or *very acute*. In this the Symptoms are more violent,
the

the bilious Purging upwards and downwards is very plentiful, joined to a *Cardialgia*, with Fainting. It generally kills before the seventh Day, with an Inflammation of the Stomach and *Duodenum*; the Signs of which are, a fixed igneous Heat about the *Præcordia*, with a Coldness of the Extremities, high Inquietude and Anxiety, a Hiccup, and a plentiful Eruetation of Bile and salival Liquor, a Jaundice-Colour of the Countenance, and a Hippocratic Face.

Some are *not so acute*, but run a greater Length, with now and then a Remission, and perhaps an Intermision, and have an *Exacerbation*, with Vomiting, Anxiety, and Coldness, every other Day, or every third Day, and ought to be called *continual Quotidians* or *Tertians*. But these Fevers, unless they are skilfully handled, readily degenerate into *slow Fevers*, and bring on obstinate Diseases of the Stomach, pressing Pains and Eruetations, from a corrosive bilious Juice gnawing the Stomach either superficially or more deep.

It is caused by a bilious Fluid secreted plentifully in the Liver, and poured out into the Stomach and *Duodenum*, where, by its Acrimony and Corrosiveness, it stimulates and lacerates the nervous Tunics, corroding and inflaming them; whence the Symptoms proper to this Fever arise, such as a burning Heat, a Cardialgic Anxiety, a Nausea, a Reaching to vomit, and a violent Purging upwards and downwards. HOFFMAN,

Dr. Pringle observes, that the BILIOUS or REMITTING FEVER of the Camp should be distinguished into two Kinds; the one *incident to the Army on dry Ground*, and the other *infesting it in damp and marshy Countries*.

The *first* of these begins with Chillness, Lassitude, Pains of the Head and Bones, and Sickness at the Stomach. At Night the Fever runs high, the Heat and Thirst are great, the Tongue is parched, and the Head aches violently, the Patient can obtain no Rest, and often becomes delirious. But generally in the Morning an imperfect Sweat brings on a Remission of all the Symptoms. In the Evening the Paroxysm returns, but without any cold Fits, and is commonly worse than the former: On the second Morning it remits as before. These Periods go on daily till the Fever changes insensibly into a continued or intermitting Shape. Sometimes loose Stools carry off the Fit and supply the Place of Sweats. But though it generally assumes the Type of a *Quotidian Fever*, it sometimes puts on that of a *Tertian*.

The *Remissions* usually appear from the Beginning, especially if the Patient has been plentifully blooded. Sometimes there are none for the first two or three Days. *Bleeding at the Nose*

Nose frequently happens at the Height of the Paroxysms, which causes a more quick and evident Remission. Vomiting or Purging have the like Effects. But no Evacuation has made a complete Cure, unless the *Cholera Morbus* supervened.

The *Pulse* is always full and quick during the Paroxysms; and in the Remissions it still indicates some Degree of a Fever. The *Blood* is florid, the *Craassamentum* is firm, in a large Quantity, and sinks in the *Serum*. Towards the End of the Campaign it acquires an *inflammatory Crust*; for by that Time, Stitches, rheumatic Pains, or a Cough from Colds supervene to the rest of the Symptoms.

While the Weather continues warm, the *bilious Symptoms* are most frequent; but as the Winter approaches, the *inflammatory* prevail. The *Urine* is high-coloured, and crude, till the Fever is brought to intermit, and what is voided by Vomit or Stool, is generally of a bilious or corrupted Nature.

Costiveness not only often precedes, but accompanies the Disease, and then the Belly feels hard. The Patient complains of Wind. *All do not vomit*, but there is a Disorder at the Stomach, especially during the hot Weather.

Worms of the round Kind are frequently voided by Stool, sometimes by Vomiting. Those that are troubled with them have more obstinate Gripings, or Sickness at the Stomach. They frequently have Stitches of a flatulent Kind, which are not relieved by Bleeding. *Some grow yellow*, as in the Jaundice; but it is not a mortal Sign.

There were no critical Days, nor any certain Duration of the Fever, which was longer or shorter according to the Method of Cure. It commonly changed to an Intermittent, if proper Means were used: But if it became Continual, it was always dangerous. It attended every Campaign, but was most frequent in the hot Summers of 1743 and 1747.

The *BILIOUS FEVERS* of low, marshy Countries, in the End of July 1748, while the Days were sultry, but the Nights cool and foggy, seized several Men at once with a burning Heat and violent Head-ach, preceded in some by a short and slight Chilliness. There was an intense Thirst, an Aching of the Bones, a Pain of the Back, great Lassitude and Inquietude, frequently a Nausea, Sickness or Pain about the Pit of the Stomach; sometimes vomiting a green or yellow Bile of an offensive Smell. The *Pulse*, at first, was generally depressed, but full after Bleeding. Some had their Heads so suddenly and violently affected, that they ran about in a wild Manner like mad Men. But the Solution of the Fit by a Sweat discovered the true Nature of their *Delirium*.

Two were seized at once by the violent Symptoms of an ardent Fever, and tho' they were speedily and plentifully blooded, they were both in a high *Delirium* in an Hour's Time, which continued for some Hours, and went off in profuse Sweats, under which all the other Symptoms either abated or vanished. The next Day, about the same Hour, the Paroxysm returned, and in six or seven Hours run the same Course. Some had not the Paroxysms so distinct; for the hot Fits were long, and followed by imperfect Sweats, affording little Relief. Sometimes the Fever had daily Intermissions, but in general it only remitted, and the Remissions were often very imperceptible. A few Returns of these Paroxysms reduced the strongest Men so low that they were not able to rise. Some became quite delirious at once, and would have thrown themselves out of the Windows, or into the Water, if not hindered. This continued some Hours, after which the Patient falling into a profound Sleep, awaked quite sensible; but with an intolerable Head-ach. The Fever in others appeared in a continued or remitting Form, and had critical Sweats about the ninth Day, after which it became a regular Intermittent. A few had a *Crisis* by Stool or Urine; and there were some who were ill about three Weeks, without any sensible Intermision; after which the Fever ended with a few quotidian Paroxysms; these had a continual Moisture over their Bodies. Some had bilious Vomiting at first, and several voided round Worms both Ways. Profuse Sweats had always a putrid Smell, and the Discharge from the Blisters was intolerably offensive. A few of those that died had a regular Pulse even very near their End. All had a cadaverous Smell before they died, and livid Spots immediately after Death. *This Fever was very prone to relapse.* PRINGLE.

Hoffman, in the Cure of the Bilious Fevers mentioned by him, would have the caustic Acrimony of the bilious Juices abated and sheathed by *absorbent Powders* and *Nitre*, which should be taken in a sufficient Quantity of a Liquid, and often repeated. He likewise recommends Emulsions of Almonds, of the cold Seeds; Elder-Flower-Water, Rose-Water, &c. As also Jellies of Hartshorn, Milk and Water, Oil of Sweet Almonds, sweet Whey, Chicken-Broth; because they are very proper to drive away the Inflammation of the nervous membranous Parts.

I. R. Ocul. Cancror. Matris Perlar. [five Test. Ostrear.] Corn. Cerv. sine Igne ppt. Lapid. Talc. calcinat. an. ʒj. Nitri. ʒj. M. F. Pulvis de quo singulis Horis sumendus ʒj. cum Emulsionis Amygdalatae ʒij. cui ʒij. Olei Amygdalarum commixtae.

After

After these Things, Medicines must be given to restrain the impetuous, bilious Excretions, and to abate the too quick systaltic, and peristaltic Motion of the biliary Ducts, and to prevent the too great Excretion of the Bile.

In the Cure of the BILIOUS FEVER of the Camp, Pringle, before it becomes continual, depends on the proper Use of Evacuations, the neutral Salts, and the Bark. BLEEDING is the first thing to be done in every Case, and is to be repeated once or oftener, according to the Urgency of the Distemper. The vernal and later autumnal Remittents are accompanied with rheumatic, pleuritic Pains, and other Symptoms of high Inflammation, which require more Bleedings than the intermediate Season. To omit this, and give the Bark too soon, will bring on an inflammatory Fever. A Vein may be opened safely, either during the Remission or in the Height of the Paroxysm; as also in the Marsh Fever, when it comes almost to regular Intermittions. It is not proper to bleed during the Sweat, nor the cold Fit. But there was no Danger of a Mistake with regard to the last, for there was none.

After Bleeding, give an Emetic in the Remission or Intermision of the Fever, and rather soon after a Paroxysm than before one. But Emetics do harm when the Stomach is inflamed, or when the Disease has continued some Time, and has assumed the Type of a continual Fever. However, we may safely give one when the Fever intermits, or has considerable Remissions. *Ipecacuanha* is safest, but Antimonials most efficacious. If the Remissions are small, or the Fever great, or there is a Tendency to vomit, the former is best. But, when the Remissions are distinct, or the Remission perfect, the latter should be preferred, or it may be joined to the former, that is, two Grains of Tartar Emetic with a Scruple of the Powder of *Ipecacuanha*. Those Vomits are best which produce Stools, especially if they procure a plentiful Discharge of corrupted Bile upwards or downwards. This has effected a Cure alone.

If the Body continues costive, a Laxative will be proper, especially if there is a Tenesmus, or Pains in the Bowels. The saline Draught, with Salt of Wormwood and Lemon-Juice, will bring the Fever sooner to regular Intermittions. Or,

2. R. Sal. Absinth. ʒj. solv. in Aq. Fontan. ʒvij. & instil. Sp. Vitriol. q. s. ad Saturat. Add. Aq. Alexiter. Spir. & Syr. ʒ Cort. Aurant. an. ʒss. Cap. Coch. vj. quarta vel sexta quaque Hora.

Whenever the Sweats are not profuse enough in Proportion to the Fits, the Quantity of an Ounce of Spir. Mindereri may be

be given, divided into two or three Draughts before they go off. It promotes a plentiful *Diaphoresis* without Heating.

As these Fevers are never without an Inflammation in the Beginning, and then rarely have complete Paroxysms, the *Bark* is not to be given till the Urine breaks, and there are intire short Intermittions; nor yet before Bleeding, as was observed above; nor before the first Passages have been cleansed; otherwise the Fever will return, or a *Tympanites* will be produced.

It is best to give the *Bark* in Substance in Rhenish Wine; or an Ounce of it may be made into an Electuary, with Syrup of Lemons, and a Dram of *Sat Ammaniacum*. If the Patient has not been purged, it will be proper to add as much *Rhubarb* as will keep the Body open for the first two or three Days of using that Medicine. It is chiefly useful when the *bilious Humours abound*, as they mostly do in *marshy Countries*. If the *Paroxysms are quotidian*, and the Intermittions short, it may be necessary to give the *Bark* before the Sweating is quite over.

If the Disease has been neglected in the first Stages, or if after the Remissions or Intermittions it changes to a continual Fever, with a full and hard Pulse, a Vein must be opened. But if there is a Pain in the Head or a Delirium, and the Pulse small, it will be best to apply Leeches to the Temples. But whether the Patient is bled or not, *Blisters are the best Remedy*. If the *Prima Via* are loaded, Clysters or a Laxative may be proper; but neither Vomits nor Purges; nor are these to be repeated without Caution. To these Remedies the *saline Draught* may be added; or,

3. R. Pulv. Contrayerv. com. ℥j. Nitri pur. gr. x. Camphor. gr. ij. vel iij. M. F. Pulvis, sexta quaque Hora repetend.
Or,

4. R. Aq. Fontan. ℥iv. Aq. Alexeter. spir. cum Aceto; Julep. è Camphor. an. ℥iiss. Pulv. è Contrayerv. comp. ℥iv. Nitri pur. ℥ij. Syr. è Cor. Aurant. ʒvj. M. Cap. Coch. iij. vel iv. sexta quaque Hora.

Sweating is the proper *Crisis*; it is never to be promoted by *Theriaca* or Volatiles; but when the Pulse sinks, and *Petechiæ*, or other bad Symptoms appear, it will be proper to use the warmer *Alexipharmics*, and to treat the Disease like a malignant Fever.

If it changes to the *Bloody-Flux*, it must be treated as the *Camp-Dysentery*. If a *Diarrhœa* comes on, it will be often convenient to restrain it gradually, not suddenly, by Opiates; and afterwards to promote a *Diaphoresis*. If the Pulse sinks with the frequent Stools, *Theriaca* and *Serpentaria* may be given.

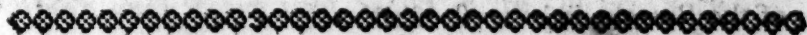
given, but with a less Proportion of the first than in *Fuller's Decoction* *.

A *Looseness* is the least favourable *Crisis*; yet if there are Colic Pains, or a Tension of the Belly, attended with Dryness of the Skin, it will be proper to procure Stools by a Clyster, or a gentle Laxative, such as the Infusion of *Rhubarb with Manna*; which is to be repeated as the Patient can bear it.

THE CAMP and MARSH FEVERS have the *like Cure*, as well as *Symptoms*. However, when the *Marsh Fever* is of the ardent Kind, it requires large Bleeding; but in general, as the Humours in this have a very putrid Tendency, it will not bear so much as that of the Camp. In most Cases it is necessary to open a Vein on the first Attack, or on the next Day, if there is no Intermission. But *repeated Bleedings*, unless the Signs of an Inflammation were evident, will be apt to render the Fever more malignant. Bleeding is not always necessary upon a Relapse, or after the Weather grows cool, when there is no Inflammation or perfect Remission.

In this Disease an *Emetic* has had more remarkable Effects than in the former, but not with *Ipecacuanha* alone; therefore two Grains of *Emetic Tartar* have generally been added.

The *Bark* must be given after the first fair Intermission, and must be properly repeated to prevent a Relapse; that is, an Ounce every ten or twelve Days throughout the Autumn. Add to this, an Abstinence from Fruit, new Small-Beer, and flatulent Aliment, because they tend to relax.



Of the CAUSUS, or Burning FEVER.

THE principal Symptoms of a *Causus* are, a Heat almost burning to the Touch, most remarkable about the vital Parts, but more moderate towards the Extremities, which are even sometimes cold: The *Breath* is extremely hot; there is a *Dryness* of the whole Skin, Nostrils, Mouth, and Tongue. The *Respiration* is thick, difficult, and quick; the *Tongue* is dry, yellow, black, parched, and rough; the Thirst is unquenchable; there is a *Loathing* of Food, a *Nausea* and Vomiting; an Anxiety, Inquietude, and great Lassitude; a little Cough, a shrill Voice, a *Delirium*, a Phrensy, a continual

* *Decoct. Serpent. comp. Phar. Edinb.*

Watching or a *Coma*, Convulsions; and on the odd Days an Exacerbation of the Fever. BOERHAAVE.

In this temperate Climate these Sort of Fevers are very rare; those that are more common among us are the *burning sanguineous*, or the *continual bilious Fevers without Remission*.

This begins without any remarkable Coldness or Shivering, with great Heat, Thirst, Watching, Anxiety, and Inquietude. In sanguineo-bilious Constitutions, and in Bodies full of hot bilious Blood, they terminate on critical Days in Health or Death, being first preceded with a Shaking. They terminate in a salutary Manner, with a Sweat or a Bleeding at the Nose.

On the *third* and *fourth* Day it often proves mortal; it seldom exceeds the *seventh*, if violent.

It is often terminated by an *Hæmorrhage*, which, if small on the *third* and *fourth* Day, is a fatal Sign. It is best if it happens on a *critical* Day.

A *Solution* of this Fever on a critical Day, may also be by Vomiting, Stool, Sweat, Urine, or spitting thick Phlegm. If the Exacerbation of this Disease happens on the *second* or *fourth* Day, it is a bad Sign; on the *sixth*, not so bad.

The *Urine* black, small in Quantity, and thin, is *fatal*; so is *spitting* or *pissing* of Blood. A Difficulty of *swallowing* is a bad Sign; but the *worst of all* is Coldness of the extreme Parts. The *Face* red and sweaty is bad, a *Parotis* not tending to Suppuration is fatal; the Body too loose is fatal. A *Tremor* turning into a *Delirium* is mortal: It often changes into a *Peripneumony* with a *Delirium*. When this Disease succeeds Gripings of the Bowels, it is worst of all.

A critical Determination of this Fever is usually preceded by a *Rigor*, or Shaking.

The *Cure* of a *burning Fever* is most easily obtained in a pure, cool Air, frequently renewed: The Patient must not be oppressed or stifled with Bed-Cloaths, but should sit up often. He should drink plentifully of soft, sub-acid, aqueous and warm Liquors. His *Diet* should be light, made of Pearl-Barley, Oatmeal, and sub-acid Fruits.

Bleeding is necessary at the Beginning, if there is a *Plethora*, or Signs of a particular Inflammation, or the Heat is intolerable, or the Rarefaction too great, or a Revulsion necessary, or the Symptoms urgent, in which Circumstances the Disorder is hardly to be vanquished by any other Remedies.

Soft, diluting, laxative, antiphlogistic, cooling *Clysters*, are to be repeated as oft as the *Heat*, *Costiveness*, and *Revulsion* require them.

The

The whole Body is to be moistened, by receiving into the Nostrils the Steams of warm Water, by washing the Mouth, Throat, Feet, and Hands with the same; by fomenting with warm Spunges the Places where the Vessels are most numerous, and most exposed to the Touch.

The Medicines should be aqueous, soft, nitrous, gratefully acid, gently laxative, not promoting Sweat and Urine by their Acrimony, but by their Plenty; such as remove the Contraction of the Fibres, resolve the Thickness of the Humours, and dilute, and temperate their Acrimony. BOERHAAVE.

To appease *Thirst* in this Disease, and to moisten the Tongue and parched *Fauces*, there is nothing better than sweet Whey, in a Quart of which Half a Dram of pure Nitre has been dissolved. Small Draughts of this, a little cool, may be drank frequently, which will likewise extinguish the preternatural Heat. The Mouth and Throat may also be washed with Water, mixt with Syrup of Mulberries and Nitre.

If there is an *anginous Inflammation*, the following *Linctus* is excellent, if swallowed gradually:

I. R. *Fulep. Rosar. 3j. Nitr. pur. gr. xv. Camph. gr. iij. in Ol. Amygdal. dulc. 3j. solut. M. F. Linctus.*

Purgatives are dangerous before the *Crisis*, but *Glysters* may be used, made of Milk, Honey, and a little Nitre. After the *Crisis*, which is known by the *Sediment* in the Urine, Laxatives, made with Tamarinds, Manna, Rhubarb, Raisins, or Cream of Tartar, are absolutely necessary.

The Ancients are very profuse in their Praise of cold Water in this Disease; but the Patient must drink but a little at a Time, and often, and never till some Days after the Attack; not at the Time of the Accession or Exacerbation, or where there is a Rigor or a small or intermitting Pulse. Nor must it be drank but when the *Plethora* is diminished, when the extreme Parts are hot, and the Pulse equal, quick, and great.

When there is a severe Pain in the Head, with an incipient Delirium, and Drops of Blood fall from the Nose, apply an Epithem made of Vinegar of Roses, Rose-Water, and Spirit of Wine and Camphire, with Nitre, and Oil of Rhodium, not only to the Temples, but to the whole Head shaved all over. It must be a little coolish. This is cooling, discutient, and resists an Inflammation. The best Cure for a Phrenzy is Bleeding at the Nose; which may be procured by Scarification, or thrusting a Straw up the Nose. At the same Time the Feet must be kept warm and well rubbed; (or Sinapisms may be laid thereon.) HOFFMAN.

Of the Burning Bilious FEVER, or Yellow FEVER of
the West-Indies.

THE Yellow Fever begins with a *momentary Chillness* and *Shivering*, which is soon succeeded by a *burning Heat* all over the Body, but felt more intensely about the *Præcordia*. The *Pulse* is high, strong, and rapid; the *Eyes* are heavy; with a throbbing Pain in the Head, a violent beating of the *temporal Arteries*, and a thick, laborious Respiration: There is a *Nauseousness* and *Reaching* to vomit; and when any thing is thrown up, it is of the *bilious Kind*: Besides these, *great Anxiety*, Pain in the *Back* and *Loins*, and an uneasy *Lassitude* in all the Limbs.

About *twelve Hours* after the Invasion, the *Tongue* is dry, harsh, rough, and discoloured, with insatiable *Thirst*, there is a *Soreness* all over the Body, great *Restlessness* and a *Delirium*.

In the *last Stage*, the Patient labours under a great *Coma*, Oppression of the *Præcordia*, heaving of the *Lungs*, and interrupted Respiration, Tremblings of the *Tendons*, *Convulsions*, and cold clammy *Sweats*.

It usually terminates in a *favourable Crisis*, or the *Death* of the Patient, about the *fourth Day* after the Attack.

The *regular Crisis* generally discovers itself by a *Suffusion* of the *Bile* all over the Surface of the Body about the *third Day*. The *Saffron Tincture* is frequently discovered in the *Eyes* twelve Hours after the Invasion: The sooner it appears, the more favourable is the *Prognostic*.

A *Jamaica Writer* affirms, that if the *Jaundice* comes on too soon, it is bad. If with livid Spots, which sometimes, though rarely appear, it is fatal. If the Skin continues obstinately dry and rough, the Case is dangerous, and the more so, the longer it continues; for these very seldom recover, be the Pulse ever so good. The Pulse is not to be depended on; for many have a good Pulse a few Hours before Death. If the Vomitings are incessant, grow darker, and the Hiccup comes on, it is generally fatal. If the Face is greatly flushed, and the Vessels of the White of the Eye are turgid with Blood, as in an *Ophthalmia* attended with a Phrenzy, the Patient is likely to die in a very little Time; especially if the Skin is dry.

But if the Head continues clear, the Pulse becomes soft, the Pains, *Nausea*, and Anguish are relieved by *Bleeding*; as also if the Humours vomited up are carried downwards by *Laxatives*; if then the Inquietude ceases, the Skin grows soft and

and moist, and the Patient has better Spirits, it is probable he will recover.

Bleeding is the first thing to be done, more or less, according to the Force of the Disease, and the Strength of the Patient; and if the Symptoms continue in their full Vigour, should be repeated once in six or eight Hours, lessening the Quantity proportionably each Time.

After the first Bleeding, give a Vomit of Ipecacuanha, quickened with three or four Grains of Emetic Tartar, (or rather two Grains,) which will bring up a great Quantity of yellow, porraceous, and sometimes blackish Bile, and carry the Humours downwards.

After this the Patient may drink plentifully of diluting, refrigerating, and subacid Liquors, made with Oranges, Lemons, Tamarinds, Spirit of Sulphur, Spirit of Vitriol, and such like, in Barley-Water, Spring-Water, or other thin and cooling Vehicles. He may likewise be allowed tartish juicy Fruits, as Ananas, Granadilloes, Barbadoes Cherries, and Water Melons; as also Plantains and Bananas, roasted for Food, Jelly of Guavas, &c.

The following are the Forms frequently made use of:

1. R. Decoct. Hord. ℥ij. Aq. Alexeter. sim. ℥j. Syrup. Lim. ℥iv. M. bibat ad libitum. Or,
2. R. Conf. Tamarind. ℥vj. Coq. in Aq. Font. ℥iv. Colatur. bibat frequenter. Or,
3. R. Succ. express. Melon. aquatic. dict. ℥ij. Decoct. Hord. ℥j. Vin. Rhenan. ℥ls. Sacchar. alb. q. s. ad gratam dulcedinem. Capiat ut prius. Or,
4. R. Decoct. Hord. ℥iij. instillentur Spir. Nitr. gut. q. s. in eisdem usus. Or,
5. R. Laet. Nuc. Coc. ℥ij. Sp. Nitr. cum Ol. Vitriol. q. s. ad gratam Aciditatem, & Sacch. alb. parum edulcoretur.

Cooling testaceous Powders are likewise very beneficial, given in the following Manner:

6. R. Ocul. Cancr. ppt. ℥ls. Sal. Prunel. zij. divid. in Dos. viij. Capiat unam quarta quaque Hora. Or,
7. R. Pulv. à Chel. C. simpl. ℥ls. Crem. Tart. zij. divid. & capiat ut prius. Or,
8. R. Pulv. Test. Ovor. calcinat. Coral. rub. ppt. an. ℥iij. Nitr. pur. zij. in eisdem Usus.

These refrigerate the Blood, and promote a Discharge by Urine. Towards the Evening it will be necessary to inject a

Clyster, made of the common *Decoction*, with half an Ounce of Cream of Tartar, an Ounce of Manna, or an Ounce of Pulp of *Cassia* added to it.

When the Operation of the *Clyster* is over, *Paregorics* will be proper, as thus:

9. R. *Aq. Alexeter*. $\mathfrak{ss}$ $\mathfrak{z}$ ij. *Syrup. de Mæcon.* $\mathfrak{z}$ j. *M.* Or,

10. R. *Aq. Menth.* $\mathfrak{f}$. $\mathfrak{z}$ ij. *Aq. Cinnamom.* $\mathfrak{f}$. $\mathfrak{z}$ j. *Tinctur. Thebæic.* gutt. xxv. *Sacch. Alb.* q. $\mathfrak{f}$. *M.* Or,

11. R. *Aq. Cinnamom.* $\mathfrak{f}$. $\mathfrak{z}$ ij. *Aq. Epidem. Syr. de Mæcon.* an. $\mathfrak{z}$ ij. *Tinctur. Thebæic.* gutt. xx. *M.*

The Room should be kept cool, and sprinkled with Vinegar, Rose-Water, and cooling Herbs. Fresh Air should be admitted, but not to blow directly on the Patient's Body.

If the Physician is not sent for till the Patient's Tongue is furred, and the Mouth incrusted with a blackish Scurf, with intolerable Thirst and a Delirium, then Bleeding, or rather Cupping, with deep Scarifications on the Shoulders, will relieve the Head to a wonder.

Blisters are also of great Efficacy at this Juncture; which, if applied before it be too late, a Coma, the deadly Symptom of this Distemper, very rarely ensues.

Here likewise the following *Emulsions* are proper:

12. R. *Amygd. dulc. excorticat. Sem. Melon. Papav. alb. an.* $\mathfrak{z}$ ss. in Mortar. marmor. cum *Decoct. Hord.* $\mathfrak{ss}$ ij. *F. Emulsio sæpius sumend.* Or,

13. R. *Amygd. dulc. Sem. 4. Frig. maj. an.* $\mathfrak{z}$ j. *Lact. Nuc. Coc.* $\mathfrak{ss}$ ij. *F. Emulsio. Cui add. Syr. de Mæcon.* $\mathfrak{z}$ ij. *Ufus ut prius.*

The Patient's Diet should be nothing but thin *Panada* and *Water-Gruel*, gratefully sweetened and acidulated.

In this Case likewise the Quantity of *Sal Prunel*, or Cream of Tartar, should be increased in the Doses of the cooling Powder, equal to the other Half of the Dose.

Besides plentiful and frequent Draughts of cooling Liquor, the Patient should be allowed preserved Tamarinds, Slices of Lemon with a little Sugar; but above all, *Penguins*, which by their Sharpness penetrate the thick, tenacious Scurf, whereby the Glands of the Mouth will be unloaded. Opates must also be used in larger Doses than in *Europe*, every Night, in a small Draught of any of the cooling Liquors abovementioned.

Cooling and lenient *Clysters* must also be repeated every eight Hours.

14. R. Aq. Decoct. Hord. ℥ix. Nitri pur. ℥ss. Syrup. Rosar. cum Sen. ℥ij. F. Enema. Or,

15. R. Decoct. com. pro Clyst. ℥x. Sal. Tart. ℥ss. Mel. Rosar. ℥j. M.

When the Patient begins to be comatose, the third and last Stage of the Disease is advancing; in which are, Difficulty of Breathing, Oppression of the Pæcondia, convulsive Twitching of the Tendons, Interruption of the Pulse, and at length its total Cessation.

In this Case, a complete Set of Blisters must be immediately applied, or the old ones renewed; which must be laid to the Nape of the Neck, on the Wrists, Thighs and Legs, and a large one on the Crown of the Head. To the Soles of the Feet may be laid a Cataplasm of Salt Herrings and Mustard.

At the same Time prescribe cordial Medicines, in which Camphire must not be omitted; thus,

16. R. Camph. gr. vj. Castor. gr. v. Confect. Alkerm. ℥ss. F. Bolus. Or,

17. R. Camph. gr. vj. Sal. Succin. gr. viij. Pulv. Contrayerv. comp. gr. x. Syr. e Cort. Citri q. s. ut F. Bolus. Or,

18. R. Camph. gr. vij. Rad. Contrayerv. ℥j. Sal. Volat. C. C. gr. viij. Confect. Alkerm. q. s. F. Bolus. Or,

19. R. Camph. Croc. Ang. an. gr. vj. Pulv. Contrayerv. comp. gr. xv. Confect. Alkerm. q. s. F. Bolus. Or,

20. R. Mosch. gr. xij. Confect. Alkerm. q. s. M. F. Bolus.

Any one of these is to be repeated as often as Occasion shall require; nor must forcible and stimulating Clysters be omitted,

21. R. Decoct. commun. pro Clyst. ℥ss. Fol. Senn. ℥ss. coq. ad ℥ss. colatur. adde Tinct. sac. ℥ij. Ol. Junip. Chym. gutt. x. M. F. Enema. Or,

22. R. Decoct. com. pro Clyst. ℥viij. Syr. de Rhamn. Cathart. ℥ij. Ol. Chamæmel. ℥j. M. F. Enema. Or,

23. R. Decoct. commun. pro Clyst. ℥viij. Vin. Benedict. ℥j. Sal. Gem. ℥ss. Ol. Succin. ℥ij. M. F. Enema.

With regard to the urgent Symptoms; Pains of the Head, Watchfulness, and Deliria, are to be relieved by emollient and laxative Clysters, gentle Purgatives, cupping with Scarification, opening the frontal Vein, Lotions of the Feet, and Narcotics. Likewise Linen Cloths may be applied to the Temples, dipped in the following Mixture:

Of the Burning Bilious Fever.

24. R. Acet. Rosar. ℥ij. Opii Camph. an. ℥ij. in Sp. Lavend. Comp. ℥j. solut. M.

Blisters are also useful for the same Purpose.

Convulsions require much the same Treatment externally and internally; *Aurum Musivum*, (the Dose from four Grains to a Scruple) Compound Spirit of *Lavender*, and chiefly *Puly. de Guttata Mayerni*, in proper Juleps. To restore the Strength of the Patient, little more is required than a Stomach Purge or two, mild and agreeable Bitters, and a Restorative Regimen of Broths, Jellies, and white Meats: If these should fail, Recourse may be had to the following:

25. R. Conserv. Flavod. Aurant. ℥ij. Zinziber. condit. ℥j. Corn. C. C. ℥ss. Ol. Cinam. gut. vi. Syr. i Cort. Aurant. q. s. ut fiat Electarium. Capiat Quant. N. Moschat. ter in die. Or,

26. R. Conserv. Fruct. Cynosbat. ℥ij. Zinziber. condit. ℥j. Croc. ℥j. Sp. Sulph. per Campan. gut. xv. Syr. Lim. q. s. in eisdem Ufus.

If the yellow Tincture remains upon the Skin, give a Vomit of *Ipecacuanha*, and a Purge or two, with the Decoction of *Senna*, *Tamarinds*, &c. and allow the Use of *Lemons*, *Oranges*, and other acid Fruits. If this Disorder proves obstinate, treat it as the *Jaundice*.

If a *Diarrhœa* succeeds, it is not to be stopt suddenly, provided the Patient can bear it: Otherwise soft, mucilaginous, nutritive, *antibilious* Substances are proper, such as *Jellies* with *Lemon-Juice*, Broths acidulated, and the *Decoctum Album* for common Drink. But when the discharged Matter becomes thin, pituitous, and white, treat it as a *Diarrhœa*. TOWNE.

Of the SENEGAL FEVER.

THE Fever which chiefly prevails in this Country in the Months of *July*, *August*, and *September*, is of the worst Kind. It usually begins with *Drowsiness*, *Lassitude*, and great *Rigors*, which continue frequently three or four Hours, and are succeeded by intense Heat and Sweats. For three or four Days it remits, and both the Shiverings and hot Fits become more moderate. During this Period, the Pulse is quick and low; but afterwards becomes fuller, unless some Evacuation intervene. At this Time profuse Sweats are easily brought on; in which Case

Case there are little Hopes of Recovery. A parched, dry Skin, is as bad a Symptom, if it continues more than a Day; for an *intermitting Pulse* and a *Delirium* succeed, and continue for seven or eight Days, the Frequency of the Intermittions increasing every other Day. But if a *general moderate Moisture* comes on at this, or any other Time of the Disorder, and continues, the Patient recovers. A *violent Pain in the Back*, and *Difficulty of Breathing*, are general Complaints. *Sudden Languors*, and *bilious Vomings*, are frequent through a great Part of the Time.

Some are taken with a *great Heat*, and a *strong quick Pulse*, without any Shiverings or Remissions, as abovementioned. In this Case the Patient sooner dies upon the Appearance of bad Symptoms, and is longer in recovering, upon the Appearance of good ones.

The *Loss of eight or ten Ounces of Blood*, in the first Attack of these Fevers, has *sunk the Pulse* beyond a Possibility of raising it afterwards, and that even in plethoric Habits, attended with great Pains of the Head. It is, indeed, surprising, how little these Fevers will bear of *Evacuations* of any Kind, especially *Bleeding*. Two Men, of nearly the same Habit, were taken ill at the same Time, and in the same Manner. From one of them was taken *about six Ounces of Blood*, and then they were treated alike in every other Respect. The *Bleeding* protracted the Recovery of the one to *almost double the Time* of the other. This Experiment was afterwards repeated in two other Persons with the like Event; after which it was never put in Practice.

After *profuse Sweats*, the Pulse becomes *extremely slow*; and, though the Sweating goes off, continues so for two or three Days, with Anxiety and Restlessness: After which the Pulse grows quick, the Skin parched and hot, and a Series of bad Symptoms comes on. None in this Way have been known to recover.

The Sick are always *comatose and stupid*, which Symptom is little dangerous when attended with a *warm Moisture on the Skin*, but otherwise it is *generally fatal*.

It is of great Consequence to *keep up the Pulse*; but here the *common cordial Medicines* are ineffectual; yet the *Decoction of the Bark*, with the *camphorated Julep*, and *Spirit of Vitriol*, answers this Purpose effectually, so as to render any other Medines unnecessary, except occasionally a *gentle Emetic*, or *Laxative*. VAGE.

Of the INFLAMMATION of the STOMACH.

THE Inflammation of the Stomach is known by a burning, fixed and pungent Pain in the Stomach, which is exasperated at the Instant any thing is taken into it; and is succeeded by a most painful Vomiting and Hiccup. There is always a violent internal Heat, high Anxiety, and a grievous Pain about the *Præcordia*, chiefly at the Pit of the Stomach, an acute, continual Fever, great Thirst, difficult Breathing, Inquietude, tossing of the Body, Coldness of the extreme Parts, a hard, contracted, quick, and sometimes unequal Pulse. BOERH. HOFF. In the *Med. Essays* we have Instances of this Disease being attended with a *Hydrophobia*.

This is a more common Disease than is generally attended to, and was called *Epiale*, or *Lipeiria*, by the Ancients. It may be distinguished from other Disorders of the Stomach; for in the *Cardialgia*, called by the Ancients the *Cardiac Passion*, there is also a great Anxiety about the *Præcordia*, a pressing acute Pain reaching to the Back, a Coldness of the Extremities, a constant *Stimulus* to Vomiting, with Inquietude: But the Heat in the Region of the Stomach is not so violent, nor is the Thirst and Dryness of the Tongue so great, nor the Pulse so quick and contracted, and the Stomach can better bear and retain any thing taken inwardly; nay, is frequently relieved thereby. An Inflammation of the *Intestines* has a Pain or Gripes more about the Region of the Navel, with frequent, frothy, bilious Stools, or a little bloody, with a Heat over all the Surface of the Body, and a quick large Pulse: Whereas, in this Disease, the Extremities are cold.

If it be caused by drinking cold Liquors when the Body is hot, or from an Effusion of the Bile after violent Commotions of the Mind, the Danger is not very great, as there will be Room for suitable Medicines to take Effect: But that which arises from drastic Purges, sharp Emetics, or caustic Poisons, kills quickly, without speedy Assistance. This Disease likewise often proves fatal to the Old, the Infirm, the Scorbutic, and Persons full of Grief, as also in the End of acute Diseases.

When there is a restless Tossing of the Body; when Liquids are immediately thrown up; when there is a Hiccup, a Fainting, an *Hippocratic Face*, an intermitting Pulse, and Convulsions, a fatal Mortification will soon terminate the Patient's Life.

This

This Disease, if not suddenly cured, is generally mortal; And therefore, as soon as it is discovered, plentiful Bleeding is necessary, and must be repeated as the Violence of the Symptoms increases. Let the Drink be very soft, antiphlogistic, and emollient, as also Clysters of the same Kind.

BOERHAAVE.

The Patient should totally abstain from every thing that is acrimonious; even the cooling, nitrous Salts, which are beneficial in other Inflammations, irritate too much. *Vomits, Cordials and spirituous Liquors*, are little better than Poison; *Milk* generally curdles.

Aliments should be given frequently, and by a Spoonful at a Time; for any Diffusion increases the Inflammation. A thin Gruel of Barley, Oatmeal, Whey with very little Sugar or Honey, or Chicken-Broth, are proper Aliments; Whey-Emulsions, Barley-Water, emollient Decoctions, are proper Drinks. ARBUTHNOT.

The Indications of Cure are, 1. To open the Obstructions caused by tenacious Juices impacted into incongruous Vessels. 2. To remove the spastic Strictures which contract the Vessels, and to restore the equable and natural Progress of the Blood, through the Substance of the Stomach. These Ends are to be obtained by *Diluents, Humectants, Demulcents, Antispasmodics*, and Things that restrain the Heat which thickens the Fluids, and relax the contracted Fibres.

But as there are more Causes than one that produce an Inflammation, they will require different Remedies to bring about a Cure.

Therefore if it be owing to a caustic, septic, arsenical Poison, or a strong Emetic or Cathartic, or to Metallic Medicines ill prepared, and thence the Inflammation; oily fat Things are proper, as new Milk, Cream, Oil of Sweet Almonds, or Olive-Oil taken often and plentifully.

If from a Spasm, succeeding a violent Commotion of the Mind, then a nitrous absorbent Powder will be proper, in an Emulsion of White Poppy Seeds. When the Spasm is appeased, *Rhubarb* with Raisins will be necessary to carry off the *bilious Sordes*.

When an eruptive Matter is repelled, and causes this Disease, use Emulsions of the greater Cold Seeds, with temperate Bezoardic Powder; now and then adding a little Nitre, and a small Matter of Camphire. If contagious *Miasmata* suddenly offend the Stomach, then give a very gentle Emetic; and afterwards mild diaphoretic Powders, with Nitre and a little Camphire; or gutt. viij. or x. of an Ounce of Oil

Oil of Sweet Almonds, in which a Dram of Camphire is dissolved.

If from a *caustic Bile*, as in the *Cholera Morbus*, and Inflammation is apprehended, *earthy Absorbents* and *Hartshorn* philosophically prepared should be given, with gelatinous Decoctions of Calves and Neats Feet, or Hartshorn Jellies and Water Gruel. Outwardly, the following Liniment is useful in all Cases:

1. R. Ol. Amygdal. Dulc. ℥ij. Camphor. ʒj. M. F. Linimentum cum quo Præcordia frequentius inungenda, & superius ponenda Lintea calida.

The following Epithem is an egregious Discutient and Sudorific:

2. R. Acet. Rosar. ℥ij. Spir. Vin. Camphorat. ʒij. Tinct. Croc. Tinct. Castor. an. ʒj. Nitr. ʒss. M. F. Epithem. & tepide Præcordiis admoveatur. HOFFMAN.

If there happens an Imposthume, Honey, and even Honey of Roses taken inwardly, is a good Cleanser, and Decoctions of Comfry Roots, healing.

In a *Schirrus* or *Cancer* of the Stomach, the same Regimen may be observed, tho' nothing will prove effectual. ARBUTH.

When an Inflammation has continued for some Time, *Opiates* are dangerous; for they bring on a Mortification. Cold Things are hurtful, therefore Nitre must be given only in small Doses, and often, with Milk or Emulsions. In a *grievous Cardialgic Pain*, all Things that irritate must be avoided, particularly Emetics and Purges.

Lind observes, that for several Months, during the dry Season, *Senegal* is as healthful and pleasant a Country as any in the World: But soon after the rainy Season begins, a low malignant Fever spreads itself among the *Europeans*. It seems to proceed from a Poison, as it were, got into the Stomach, beginning with severe Reachings, and often with a vomiting of Bile. Upon its first Attack in this Way, it is proper to administer a few Grains of Emetic Tartar, and if this Medicine operates both upwards and downwards, it commonly relieves, and often entirely abates all the Symptoms; but this lucid Interval continues only a short Time, for commonly in six Hours afterwards, the Fever and Vomiting return, accompanied with a Delirium. The Administration of a second Emetic does not produce so good an Effect, or a Remission of the Fever. A second Remission is sometimes accomplished by the *Julepum à Camphora. Pharmacop. Londinens.* and the *Hausfl. Salin. Pharmac. Edinburg*, and then the Bark is to be administered

stered without Delay. In some, the Fever is very malignant, and the Patient dies, soon after its Attack; the Corpse appearing of a yellow Colour, and the Skin stained with livid Spots or Blotches. Blisters are seldom applied till the Patient is comatose, and then they produce good Effects.

The Bark should be given immediately after the first Remission of the Fever has been procured by Vomits. A more early Application of Blisters is adviseable, if the Fever be remarkably low.

An inflammatory Fever is seldom observed during the Season of Sickness in this Part of the World; though the Flux may sometimes make its Appearance at other Seasons, and is a Distemper very common, and often fatal to *Europeans* in *Guinea*. The most mortal epidemic, however, is that low, malignant Fever, of the remitting Kind, which rages only in the wet Season.

In dangerous Cases, a Quarter of an Ounce of Bark ought to be administered in Wine every two or three Hours, until an Ounce and half of that Medicine has been taken, and ʒvj. of it every twenty-four Hours afterwards.

So much Harm has been done here by the Lancet, in the Hands of such as have read only *Sydenham's Works*, or Authors who treat of inflammatory Fevers only, that it is most adviseable for the inexperienced in such Climates to abstain altogether from its Use, and to trust the Safety of their Patients, in such Cases, to Vomits, and the early Application of Blisters, and the Use of the Bark upon the first Remission.

It is a melancholy but a certain Truth, that the Maintenance of a military Establishment at *Senegal*, for three Years, during the last War, was attended with an annual Loss of above a thousand Lives; and since the late Re-establishment of a military Government there, the Mortality has been very considerable. Many of the Officers and Soldiers who since embarked for that Part of the World are now dead; and the present Governor, with the poor Remains of his Corps, may be said to have been kept alive chiefly by repeated Doses of the *Peruvian Bark*.

I cannot help further observing, that the warm Woollen Cloaths, and the black Hats, which constitute the Regimental Dress of an *English* Soldier, are altogether improper in hot Climates; as in those Countries, the Men, during fatiguing Marches, while sweating under the oppressive Load of Arms, and warm Cloathing, are apt, in the Heat of the Day, to be suddenly seized with a Species of Apoplexy, occasioned by the scorching Beams of the Sun darted on the Head, and absorbed by

by the Blackness of the Hat; to prevent which a White Covering for that Part seems requisite. To recover the Patient from this Fit, immediate Bleeding is absolutely required; notwithstanding which, many die, and others remain deprived of their Senses ever afterwards.

Of the QUINSEY.

A QUINSEY is an Inflammation of the *Fauces*, with a burning Pain, Tumor, and Redness; a Difficulty of Breathing or Swallowing, and a Fever, proceeding from a *Stasis* of Blood, or a viscid acrid Serum in the sanguineous or lymphatic Vessels. HOFFMAN. It is commonly most rife between the Spring and the Summer.

It begins with a *Fever*, which is followed with a *Pain* and *Inflammation* of the *Fauces*, causing the *Uvula*, *Tonsils*, and *Larynx* to swell; whence great Difficulty of Breathing and Swallowing ensues. SYDENHAM.

This Disease may be seated at the Root of the Tongue, near the *Os Hyoides*; the *Foramina* of the Nostrils opening to the Bone; the Beginning of the *Oesophagus*; the Muscles of the *Pharynx*; the internal and external Muscles of the *Larynx*; the greater and lesser Glands; the *Tonsils*, or the Muscles moving the Jaws.

When a *Quinsey* affects the internal Muscles of the *Larynx*, and there is no outward Redness about any Part of the Neck, but a burning Pain inwardly, a Loss of Voice, and great Difficulty of Breathing; it often kills in twenty-four Hours. This is called a *Kynanche*. When it is seated in the internal Muscles of the *Pharynx*, it is called a *Synanche*, in which there is no external Tumor and Redness, but a great Difficulty of Swallowing and Breathing, and whatever is drank returns through the Nose. When there is an outward Tumor and Redness, and the external Muscles of the *Pharynx* are affected, it is a *Parasynanche*; when the external Muscles of the *Larynx*, a *Parakynanche*.

A *Quinsey* is likewise distinguished into the *true* and *spurious*. The *true* arises from the *Stasis* of the Blood; the *spurious* or *bastard* from a Congestion of the Serum. The former is *acute*, always attended with a *Rigor* and a *Fever*. The latter has rather a *Lymphatic* or *Catarrhal*, than an *Acute Fever*. The first has not only a burning, pricking Pain in the inner Parts of the *Fauces*,

Fauces, but the Tongue is turgid with Blood, and of a dark reddish Colour; the Face is likewise red; there is a great Pulsation of the Temporal Arteries; sometimes a Head-ach, a *Torpor* of the Senses; sometimes Fainting.

When it is very violent there is a Difficulty of Breathing, high Anxiety, and Coldness of the Extremities, and is very dangerous, requiring speedy Help. But in the *spurious*, those Symptoms are either absent, or more mild; nor is the Danger so great.

The Quinsey may be also distinguished into the *dry*, or *highly ardent*, and the *moist*, or *greatly mucous*. The first is from the Blood, with a very acute Fever, as was said of the true. But the other is more *chronic*, and attends *catarrhal Fevers*, being common to the *Scorbutic* and *Cachectic*. The Tongue is covered with a *viscid Mucus*, and the Breath stinks.

This Disease may be caused by a Suppression of some usual sanguineous Evacuation; by admitting the cold Air after a strong Sudorific has been taken; and by lying in Rooms new plaistered or white-washed. Some caustic Poisons affect the Throat more than other Parts. *White Hellebore* attacks the *Fauces*, and brings on a Strangulation. The same ensues from the *Solanum furiosum*, and the Bite of a mad Dog. The Fumes of Arsenical and Mercurial Minerals, as also the Vapours of mineral Spirits, will have the same Effects. It has been produced by a Fish-Bone sticking in the Throat.

It sometimes comes on *spontaneously*, and is again the Symptom of another Disease, as the *Diarrhœa* and *Dysentery*, especially if the Flux is hastily stopped. It has happened from the striking in of an *Erysipelas*; or from the Gout being injudiciously treated with Topicks; as also from the Small-Pox, or a malignant or pestilential Fever. The Cause of the symptomatic Disease is Costiveness, or suppressed Perspiration, or the striking in of Eruptions. When it is epidemic, it has something of Malignity.

When the Swelling, Pain, and Redness appear more outwardly, and vanish by Degrees, it is a Sign of a happy Solution of the Disease. But when the external Swelling suddenly disappears, without a Mitigation of the Symptoms, it shews the morbid Matter to be translated elsewhere, and will change to a *Phrensy* or *Peripneumony*. Or this Disease may terminate in a *Suppuration*, or *Gangrene*, or a *Schirrus*. A *Frothing* of the Mouth, the Tongue vastly swelled, and of a purple, blackish Colour, portend Death. HOFFMAN.

In these Inflammations a *slight Diarrhœa* relieves; Therefore Aliments which promote it are useful; as Tamarinds infused
in

in Whey, Decoctions of *farinaceous Vegetables* moderately acidulated, and such as abound with a cooling nitrous Salt, are proper. *Burnet* is said to be a Specific in this Case. *Mulberries* are beneficial, and all *Acids*.

The Mouth and Throat must be kept moist, and the Nose clear, that the Air may have a free Passage through it. When the Patient cannot swallow, he may be nourished by Clysters, which I have known to have been done for a whole Week; after which the Tumour has suppurated. ARBUTHNOT.

Take away Blood plentifully from the Arm. SYD. By a large Orifice. BOERH. And afterwards open a *sublingual Vein*; but bleeding in the *Jugular* yields the best Assistance. HOFF. And is much more safe. If the Symptoms continue to be very urgent, the Bleeding may be repeated in six or eight Hours Time, till they begin to be more mild.

After the first Bleeding, lay a strong and large Blister on the Fore-Part of the Neck, or a Piece of Flannel dipt in the volatile Liniment.

Then let the Parts inflamed be touched with the following Mixture:

1. R. *Mel. Rosar. q. v. Spir. Sulph. q. s. ad summum Acorum. M.*

Then the following Gargle is to be used, held in the Mouth till it is hot before it be spit out; which is to be repeated pretty often:

2. R. *Aq. Plantag. & Sperm. Ranar. an. ʒiv. (vel. Aq. Hordeat. ʒviii.) Rosar. rubr. ʒiv. Album. Ovor. in aquam agitando redact. No. iij. Sacchar. Crystal. ʒij. M. F. Gargarisma. SYD. Or,*

3. R. *Aq. Hordeat. ℥j. Mell. ʒij. add. pro re nata Spir. Sal. Ammon. ʒij. M. Or rather,*

4. R. *Mixtur. Lac. & Aq. ℥jss. Ficum No. ij. Coq. ad. ℥j. pro Gargarism.*

Two Drams of the *Spir. Sal. Ammoniac.* being added, will make it better; for it thins the *Saliva*, and brings the Glands to secrete more freely. Whereas *Acids* contract the Emunc-tories of the *Saliva*, and thicken those Humours, as *Pringle* observes.

When the *Fauces* are dry, hot, and the Tongue swells, with Difficulty of Breathing,

5. R. *Album. Ovor. in Aquam quassat. ʒij. Aq. Rosar. ʒj. Sal. Prunel. gr. xij. Syr. Cydon. ʒj. M. F. Linctus, sæpe sumend.*

And

And let the Neck be anointed, as well behind as before, with the following camphorated Oil:

6. R. Ol. Amygd. dulc. ʒj. Ol. Papav. alb. ʒj. Camphor. ʒss. M. Hoff.

Let the Patient also take the following cooling Emulsion:

7. R. Ol. Amygd. dulc. excorticat. No. v. Sem. Melon. Pepon. an. ʒss. Sem. Papav. alb. ʒij. Aq. Hordeat. ℞jss. Aq. Rosar. ʒij. cum q. s. Sacchar. Cand. F. Emulso. Capiat ʒiv. quarta quaque Hora. SYDENH.

Boerhaave, after Bleeding, orders a strong Purge, and if that cannot be taken, a strong Clyster; thus,

8. R. Diagryd. gr. xvij. F. cum. Aq. Emulso. Cujus ʒss. admisce Syr. Rosar. Solut. ʒjss. F. Haustus.

9. R. Fol. Sennæ ʒj. Decoct. cum Aq. ʒviij. admisce Nitri ʒij. Syr. Rosar. Solut. ʒj. M. F. Clyster.

But Hoffman, who is an Enemy to all strong Physic, prescribes the following Decoction, as well to carry off the superfluous Humours, as to abate their Sharpness.

10. R. Mann. ʒij. Nitri Stibiati * ʒjss. Seri Lactis ʒx. M. F. Decoctum.

If this cannot be taken by the Mouth, then a Clyster.

11. R. Lact. ʒviij. Ol. Amygd. dulc. ʒij. Mell. ʒj. Sal. commun. ʒij. Nitri ʒj. M. F. Clyster. Hoff.

Emollient Steams, or even the Steam of hot Water, taken in at the Mouth, are beneficial.

If the Patient is not able to swallow any Nourishment,

12. R. Jus Carnium ʒv. Sal. Nitr. gr. x. Sp. Sal. gutt. vj. M. F. Clyster. Let it be injected every eighth Hour, after the Belly has been cleansed with a purging Clyster. BOERH.

* This Preparation is not in the London Dispensatory, but may be seen in that of Edinburgh. If you take the Waters in which the Calx of Antimony is washed, and filtre them, and evaporate to a Pellicle, you will have this stibiated Nitre, which Boerhaave says, is a gentle Aperient, and is good in inflammatory Cases, as in the Small-Pox, Measles, Pleurisy, Peripneumony, and acts without Violence by Sweat or Urine. He likewise affirms, that the Calx unwashed is a better Medicine than the washed, and may be given to half a Dram; that it is a gentle Aperient, and is good in acute Distempers. This last is the great Dissolver of Paracelsus, and is given in Chronic Cases, such as the King's Evil, &c.

If the Tumour tends to a Suppuration, it is best promoted by holding fat dried *Figs* in the Mouth; and when the *Tonsils* are full of an *inflammatory Ichor*, *Honey of Roses* mixt with *Spirit of Vitriol*, and often applied to the Part with a Pencil, is excellent. When the Thrush in Children is attended with a Pain and Heat of the Tongue, the best Remedy is to anoint the Pustules with Cream imbued with a little Nitre. HOFFMAN.

Outwardly, the following Cataplasms may be applied :

13. R. Pulp. *Ficum ping.* *Cepar. sub. cinerib. coct.* Rad. *Lilior. alb. recent. an.* ℥ij. Pulv. *Flor. Chamæmel.* ℥j. Sem. *Lin. Fænugr. an.* ℥ss. cum. *Decoct. Rad. Alth. & Ung. ex Alth.* ℥j. F. Cataplasma. Or,

14. R. Cataplasma. vulg. de Pane & Lacte ℥iv. Ung. *Sambucin.* ℥j. *Croc. Pulv.* ʒss. F. Cataplasma sæpe mutandum.

In a latent, internal, exceeding hot Quinsy, the Mouth must be frequently moistened with Milk or Cream, with an Addition of *Sal. Prunel.* and *Syr. Papav. Rhæad.*

In malignant Fevers, when there is an Inflammation of the *Oesophagus*,

15. R. Nitr. ʒj. *Camphor. gr.* iij. *Sacchar.* ℥j. M. F. Pulvis. This is to be given in an Emulsion of Sweet Almonds; and may also be held in the Mouth for some Time before it is swallowed.

That inflammatory Pain which arises from a sharp salt Serum in the glandulous Parts of the *Fauces*, with Redness, and a copious Flux of Saliva, but without a Fever, may be cured with a Gargle of Brandy alone. I have also known an Inflammation of the *Fauces* happily cured with ten Drops of camphorated Spirit of Wine, in which a Grain of Nitre has been dissolved, and suffered to pass slowly down the Throat.

When there is a large Defluxion of an impure, serous Humour upon the *Fauces*, it requires a frequent Use of gentle Laxatives. Likewise a Gargle is excellent which has the following Salt for its Basis :

16. R. Cremor. Tart. Nitr. an. ℥j. Alum. ust. ʒss. Dissolv. in Aceto distillato, & coagula s. Artem.

17. R. Hujus Sal. ʒj. Mell. ʒij. Aq. Hordeat. ℥v. M. F. Gargarisma. Let the *Fauces* be often washed with this Mixture; or it may be injected with a Syringe. HOFFM.

The acute and inflammatory Quinsy may be defined an Inflammation of some Part, or Parts, either within or contiguous to the Throat,

Throat, rendering Deglutition painful, or impracticable; and when it is of the most dangerous Kind, likewise affecting Respiration.

When only Swallowing is impaired, the Parts inflamed may be the Tonsils, the *Velum Palati*, and *Uvula*, the Muscles of the *Pharynx*, and those of the *Larynx*, which raise it or pull it down in Deglutition, but whose Action is not concerned in moderating the Aperture of the *Glottis*; while the *Larynx* itself, and the *Aspera Arteria*, remain free.

But when the Respiration is pinched, besides other Parts, these Muscles, which are employed in opening and shutting the *Glottis*, must be inflamed; and, likewise, probably the inner Membrane of the *Larynx*, and those Muscles and Fibres that join the Rings of the *Aspera Arteria* together: And sometimes these minute and remote Parts are affected without any Redness or Tumour, either within the Fauces, or outwardly on the Throat: This Kind of Quinsy is the most dangerous and suddenly destructive of all.

The Practitioner in every Kind of Quinsy ought to look carefully into the Mouth and Fauces, in order to discern where any Redness and Tumour is; that, by comparing the Appearance of the Parts with the Functions impaired, he may be enabled to form the better Judgment with Respect to the Seat of the Disease, the Prognostic, and Method of Cure.

If the Breathing is remarkably affected, there is an absolute Necessity of applying all the most efficacious Remedies, with the greatest Briskness and Speed possible. These are plentiful and repeated Bleedings, a large Blister between the *Scapulae*; Fomentations and Cataplasms outwardly; Steams to be received into the Throat, the best Ingredient in which is Vinegar; smart but cooling Purges; or, if these cannot be got down, Clysters of the same Kind; Bathing the Feet and Legs in warm Water, and even Semicupia, not made too hot, for fear of raising the Pulse too high.

But even though the Respiration should not be affected at first, if the Symptoms are otherwise violent, Remedies ought to be smartly and quickly applied to prevent Suppuration. For when the inflamed Part tends to Suppuration, the Tumour keeps increasing; and when the Pus is actually formed, the Bulk may be so enlarged as to endanger Suffocation: Or the Patient may be starved by a total Privation of Swallowing; so that Suppuration should always be prevented, if possible.

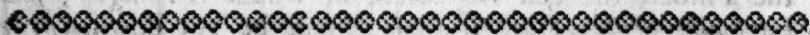
If, in the Course of the Distemper, the Patient should run a Risque of being suffocated, the Surgeons have thought on a Way of giving Relief, and postponing Fate, by opening the *Aspera Arteria*, an Inch or two under the *Pomum Adami*, or Body of the

the *Larynx*, cutting between two of its Rings, and putting a Silver or Lead Canula into the Aperture; so that the Patient may breathe through it, instead of the Glottis. This Operation, called *Bronchotomy*, is perfectly safe, and easily performed; but Prudence should direct the Operator to give Warning before hand, that, in case the worst falls out, the Patient's Death ought in Justice to be imputed to the *Disease*, and not to the *Operation*.

If the Tumour comes to suppurate, and the Surgeon can reach it safely with his Instrument, it should be opened. The smallest Quantity of Matter let out, will always give unspeakable Relief; and the rest, by using *Emollients*, and gently detergent *Gargarisms*, will follow. If it is out of Reach, frequent syringing warm emollient Liquids into the Throat, with the like Cataplasms outwardly applied, are the chief Means, within the Power of Art, to promote its breaking.

If the Patient is in Danger of being starved, besides nourishing Clysters, a Bath, or Semicupium of warm Milk, or Broth, may, no doubt, be used with Success, considering the acknowledged Certainty of Absorption through the Pores of the Skin. FLEM.

In the Philosophical Transactions, the Jelly of *Black Currants*, swallowed down leisurely in small Quantities, is asserted to be a *Specific* for a *Quinsey*; and in the Winter, a Decoction of the Leaves, or Bark, in Milk, when the Jelly cannot be had, used as a *Gargle*, is said to cure all inflammatory Distempers of the Throat.



Of the Malignant QUINSEY, or putrid SORE THROAT.

THIS Disease generally comes on with such a Giddiness of the Head as often precedes Fainting, with a Chillness or Shivering like that of an Ague Fit, followed by great Heat; and these alternately succeed each other for some Hours, till at length the Heat becomes constant and intense. The Patient then complains of an acute Pain in the Head, of Heat and Soreness, rather than Pain, in the Throat; Stiffness of the Neck; commonly great Sickness, Vomiting or Purging, or both. The Face soon after looks red and swelled, the Eyes inflamed and watery, as in the Measles; with Restlessness, Anxiety, and Faintness.

It

It frequently seizes the Patient in the fore Part of the Day; and as Night approaches the Heat and Restlessness increase, continuing till towards Morning; when, after a short, disturbed Slumber, the only Repose during several Nights, a Sweat breaks out, which mitigates the Heat and Restlessness, and gives the Disease sometimes the Appearance of an Intermittent.

If the *Mouth* and *Throat* be examined soon after the first Attack, the *Uvula* and *Tonsils* will appear swelled; and these Parts, together with the *Velum Pendulum Palati*, as well as the Cheeks on each Side, near the Entrance into the *Fauces*, and as much of the *Fauces* and the *Pharynx* behind as can be seen, appear of a florid red Colour. This Colour is commonly most observable on the posterior Edge of the Palate, in the Angles above the *Tonsils*, and upon the *Tonsils* themselves. Instead of this Redness, a broad Patch, or Spot, of an irregular Figure, and of a pale white Colour, surrounded with a florid Red, is sometimes to be seen. This Whiteness is commonly like that of the Gums after having been pressed with the Finger; or, as if a Matter ready to be discharged lay underneath.

Generally, on the second Day, the *Face*, *Neck*, *Breast*, and *Hands*, are of a deep erysipelatous Colour, with a sensible Tumefaction. The *Fingers* are so frequently tinged in a remarkable Manner, that it has been no hard Matter to guess at the Disease from a bare Sight of them.

A great Number of small Pimples, of a more intense Colour than that which surrounds them, appear on the Arms and other Parts. Where the Redness is least intense they are larger and more prominent, which is generally on the Arms, Breast, and lower Extremities.

As the Skin becomes red, the Sicknefs commonly goes off, and the Vomiting and Purging cease, which commonly happens after the first Days.

The Appearance in the *Fauces* continues the same, only the white Place becomes of a more opaque White, and is discovered to be a Slough, concealing an Ulcer of the same Dimensions. These Ulcerations are generally first discernible in the Angles above the *Tonsils*, or on the *Tonsils* themselves. They are also often seen in the Arch formed by the *Uvula* and one of the *Tonsils*; on the *Pharynx* behind, on the Inside of the Cheeks, the Basis of the Tongue, which they cover like a thick Fur. Where the Disorder is mild there is only a superficial Ulcer, of an irregular Figure, in one or more of these Parts, scarce to be distinguished from the sound Part, but by the Inequality

of its Surface. Likewise the *Redness* and *Eruption* do not always appear, and in some not till the third, fourth, or fifth Day, or later.

The *parotid Glands* on each Side commonly swell, grow hard, and are painful to the Touch: If the Disease is violent, the Neck and Throat are surrounded with a large cedematous Tumour, sometimes extending itself to the Breast, and by straitening the *Fauces* increase the Danger,

Towards Night the *Heat and Restlessness* increase, and a *Delirium* frequently comes on. This happens to some on the first Night. It is very remarkable that the Patient commonly returns a proper Answer to any Question, but with unusual Quickness; yet when they are alone, they generally talk to themselves incoherently. However, at the first Tendency to this Disorder, they affect too great a Composure. This, for the most Part, happens to those that sleep but little; for *some* are *comatose* and stupid, and take but little Notice of any thing that passes.

They continue thus for three, four, or more Days, commonly growing hot and restless towards the Evening. These Symptoms, and the *Delirium* increase as the Night comes on: A Sweat, more or less profuse, breaks out towards Morning; and from this Time they are easier during some Hours, with a Faintness, which is their chief Complaint.

Some grow easier from the first Day of the Attack; others have Symptoms of Recovery on the third, fourth, or fifth Day. First, the Redness of the Skin disappears; the Heat grows less; the Pulse, hitherto very quick, becomes slower; the external Swellings of the Neck subside; the Sloughs in the *Fauces* are cast off; the Ulcerations fill up; the Patient sleeps without Confusion, is composed when awake, and his Appetite begins to return towards more solid Nourishment.

The *Pulse*, during the Course of this Disease, is very quick, beating frequently 120 Times in a Minute. In some it is hard and small, in others soft and full, but not so strong and firm as in genuine inflammatory Disorders.

If a *Vein* be opened soon after the Distemper comes on, the *Blood* generally appears of a fresh and florid Red; the *Craassamentum* is rather of a lax, gelatinous Contexture, than dense or compact; the Serum is yellow, and in a large Proportion.

The *Urine* is at first *crude*, and of a *pale Whey Colour*; as the Disease advances it turns yellower, as if Bile was diluted in it; and soon after any Signs of Recovery appear, it commonly grows turbid, and deposits a farinaceous Sediment.

They

They *seldom* have any *Stools* if the Symptoms are favourable, from the Time the Purging, which generally attends the Accession, ceases. This Discharge is remarkably bilious, yet without Pain.

The Third is commonly less than in other acute Diseases; and the Tongue generally moist, but not furred. Some have it covered with a thick, white Coat, and complain of Soreness about the Root of the Tongue.

Though the *Uvula* and *Tonsils* are sometimes so much swelled as to leave a very narrow Entrance into the Gullet, and this Entrance frequently surrounded with Ulcers, or Sloughs, yet the Patient swallows with less Difficulty and Pain than might be expected. Soon after they are taken ill, they frequently complain of an *offensive putrid Smell*, which often occasions Sickness before any Ulcerations appear. The *Inside of the Nostrils*, in those that have this Disease severe, frequently appears, as high as can be seen, of a deep red or almost livid Colour. After a Day or two, a *thin corrosive Sanies*, or with it a white putrid Matter of a *thicker Consistence*, flows from it, so acrid as to excoriate the Part it lies upon any considerable Time. This is most observable in Children, or in young and very tender Subjects; whose Lips are likewise frequently of a deep red, or almost livid Colour, and covered on the Inside with Vesicles containing a *thin Ichor*, which excoriates the Angles of the Mouth and Cheeks where it touches them.

This *acrid Matter* seems to pass with the Nourishment into the Stomach, especially of Children; for if they get over the Disease, a Purging succeeds, yet attended with Symptoms of Ulcerations in the Bowels: These, after great Pain and Misery, at length die emaciated.

The Patients sometimes bleed at the Nose towards the Beginning of the Disease; and the *Menses* often appear in the Female Sex, if they are of Age, soon after they are seized, though at a Distance from the Time of their regular Period. It brings this Evacuation upon some that never had it before. This Flux, in full strong Habits, is seldom attended either with Benefit or with manifest ill Effects, unless very copious; yet sometimes it occasions great Faintness, and an Increase of the other Symptoms. *Hæmorrhages of the Nose and Mouth* have carried the Patient off suddenly: But this does not happen till several Days after the Attack; and perhaps may be owing to the Separation of a Slough from the Branch of an Artery.

Children and *young Persons* are more exposed to this Disease than Adults; Girls more than Boys; Women more than

Men; and the infirm, of either Sex, than the Healthy and Vigorous. Very few grown People have it, and not one has died of it, as far as I know. When it breaks out in a Family, all the Children are commonly infected with it, if the Healthy are not kept apart from the Sick; and such Adults, as are frequently with them, and receive their Breath near at hand, often undergo the same Diseases.

With regard to the Cure, Bleeding is generally prejudicial. Some admit of it, at the first Attack, without any sensible Inconvenience; but a Repetition of it, in the mildest Cases, seldom fails to aggravate the Symptoms; it has sometimes produced very fatal Consequences. *It increases the Heat, Restlessness, Delirium, and Difficulty of Breathing;* nor do the Swelling of the *Fauces, Tonsils, &c.* receive any Benefit therefrom. On the contrary, though the Fullness of these Parts decreases, yet the *Sloughs* thicken and change to a livid black Colour, the external Tumour grows large, and the Spitting commonly diminishes. Indeed, the Heat and Quickness of the Pulse may seem to abate at first by this Evacuation, but they commonly return with greater Violence, the Patient is seized with a Difficulty of Breathing, falls into cold Sweats, a Stupor, and dies suddenly.

Nor is Purging more beneficial; even gentle Cathartics have brought on very dangerous Symptoms. Upon procuring a few Stools with *Manna*, especially when the Disease has continued two or three Days, the Redness of the Skin has disappeared, and the Flux to the Throat has been surprisngly increased. If this Discharge by Stool continues, the Swelling of the Neck commonly grows larger, the *Fauces* become flaccid, dry, and livid; and the Patient, a few Hours after this, expires.

Nitrous, cooling Medicines, frequently produce the like Effects; they increase the Faintness which accompanies this Disease, and either dispose the Patient to copious sinking Sweats, or Stools.

Upon the whole it appears, that all Evacuations which tend to lessen the natural Strength of the Constitution, are injurious; and those Persons are commonly in the greatest Danger who have been previously indisposed, or their Strength impaired by Grief.

If the Purging, therefore, continues long after the first Exacerbation of the Disease, it is a dangerous Symptom; for though it may sometimes be restrained for the present with *Opiates* or *Astringents*, yet it commonly returns with greater Vehemence when their Efficacy ceases, and in a short time exhausts the small Degree of Strength remaining. In this Case they generally sweat very little, the *Fauces* appear dry, glossy, and livid; the

the external Tumour grows large; they void their Excrements without perceiving it, and fall into profuse Sweats; the Respiration becomes difficult and laborious, the Pulse sinks, the extreme Parts grow cold, and Death, in a few Hours, closes the Scene. The Eye loses its Lustre, and becomes opaque and dim, sometimes several Hours before Death.

A copious Flux of pituitous Matter to the Glands, and other Parts about the Fauces, has seemed sometimes to be the Cause of sudden Death.

It is necessary that the Patient should be kept in Bed as much as may be, though the Disease should seem to be slight; for a Purging has come on for want of Care in this respect, the Redness of the Skin disappeared, and a Disorder which, with Confinement alone, would probably have gone off in twice twenty-four Hours, has been rendered tedious and difficult.

At the first, while the Sickness and Vomiting continue, it will be best to promote the Discharge, by giving an Infusion of Green Tea, Chamomile Flowers, Carduus, or a few Grains of Ipecacuanha. This, in a few Instances, has caused the Disorder to go off sooner than was apprehended.

If the Symptoms do not abate by this means, give small Draughts of Mint Tea, with a sixth Part of Red Port, frequently, together with some warm and cordial aromatic Medicine, every four or six Hours. The Pulvis Contrayerv. compos. Confectio Cardiac. Species arom. Vinum croceum, Aqua Menth. Spir. Ag. Alex. Spir. cum Aceto, and the like.

The Diarrhœa, as well as Vomiting, generally ceases in less than twelve Hours from the first Attack: If it continues longer, it is necessary to check it; otherwise it occasions great Faintness, sinks the Strength, and in the End produces dangerous Consequences. The aromatic Cordials above-mentioned, commonly take off this Symptom, if given plentifully, and the Vomiting likewise. If they fail, recourse must be had to Elect. Fracastor. or Elect. 2 Scordio, dissolved in soft Cinnamon Water, and given post singulas Sedes.

It is common for the Redness to appear on the Skin as these Discharges abate. On the other hand, a mild Cathartic will take off the Colour from the Skin, and bring the Patient into imminent Danger.

Patients generally complain of an excessive Faintness soon after they are taken ill. The Urgency of this Symptom seems to indicate the Degree of Danger; and an Abatement of it is a pretty sure Presage of Recovery. The aromatic Medicines already mentioned, are likewise found useful in removing this Symptom. Some may think them contra-indicated by the Degree of Heat and

and Quickness of the Pulse; but the Faintness, Depression of the Pulse, and Increase of *Putrescency in the Fauces*, require them. A Dram of *Confectio Raghleana* was given to a Youth of Fifteen, every four Hours, which was soon followed by a sensible Amendment, and a Decrease of the Restlessness, Fainting, and Heat. *Wine* may be given in small Quantities, in Whey, or Mint, Baum, or Sage-Tea, Barley-water, Gruel, Panada, Sago, and the like; for it is not only an Antiseptic, but a generous Cordial. When the Faintness is excessive, it may be given alone. The Age, the former Way of treating this Disorder, and the Symptoms, afford the necessary Rules for the Quantity and Kind. Chicken-water and thin Broth, which are generally very acceptable to the Patient, may also be allowed. Children are frequently desirous of eating Chicken.

Blisters likewise relieve Faintings; they may be applied with Advantage to the usual Parts, and to the Neck on each Side, from below the Ear almost to the Clavicle, as Occasion requires.

With regard to the *Ulcers*, which demand our early and constant Attention: When the Disease is of the mildest Kind, only a *superficial* Ulceration is observable, which may escape the Notice of a Person unacquainted with it. A thin, pale, white Slough seems to accompany the next Degree; a thick, opaque, Ash-coloured one is a farther Advance; And if these Parts have a livid or black Aspect, the Case is still worse. These *Sloughs* are real Mortifications of the Substance, since, whenever they come off, they leave an Ulcer of a greater or lesser Depth, as the Sloughs were superficial or penetrating.

When the Tendency to Putrefaction is stopt, these Sloughs come off spontaneously, or their Separation may be promoted by suitable Remedies; but it must by no means be attempted by Force.

The *thin, acrid Ichor*, which is discharged from under the Sloughs, often proves of bad Consequence, especially to Children. If Gargles are injected, they either prevent them from reaching the Seat of the Disorder with their Tongues, or they swallow them and the putrid Taint of the Ulcers together, whence fatal Purgings ensue, or fatal Hæmorrhages from the penetrating Gangrene. Those that have a plentiful Discharge from the *Fauces*, carrying off this *Ichor*, are seldom attended with Sickness, Vomiting, or excessive Faintness; and where there is little or no Discharge, the Symptoms are commonly most dangerous.

Hence the great Advantage of gently stimulating Aromatic Gargles appears; because they promote the Discharge of pituitous Matter, and, doubtless, some Part of the corrosive Fluid
along

along with it. To which, if we add Antiseptics and Detergents, to check the Progress of the Mortification, and to cleanse the sordid Ulcers, every Indication will be answered.

When the Disease is mild, the Symptoms favourable, the Sloughs superficial, order a *Gargle of Sage Tea*, with a few Rose Leaves in the Infusion. Three or four Spoonfuls of Vinegar may be mixed with Half an Ounce of the Tea, with as much Honey as will make it agreeably acid.

But where the Symptoms are urgent, the Sloughs large and thick, and the Breath offensive, more efficacious Remedies must be used. The following Composition must be varied according to the Patient's Age, and the Circumstances of the Disease:

1. R. *Decoct. Pectoral.* ℥vij. *cui intercoquendum, adde Rad. Contrayerv. contus.* ℥ss. *Liquor. Colat. admisce Acet. Vini alb.* ℥ij. *Tinct. Myrrh.* ℥j. *Mel. opt.* ʒvj. *F. Gargarisma.*

This is for Adults, and a few Spoonfuls of it, a little warm, should be often injected into the Fauces with a small Syringe, especially before the Patient swallows any thing, to prevent the putrid Sordes from passing into the Stomach.

If the Sloughs are large, and are cast off slowly, they may be touched with *Mel Ægyptiacum*, by Means of an armed Probe; Or, if this cannot conveniently be done, a Spoonful of the following Mixture may be injected, and retained in the Throat as long as the Patient can endure it, and then the Parts may be washed with the above Gargle alone, two or three Times:

2. R. *Gargarisma. præscript.* ℥ij. *Mel. Ægyptiac.* ʒj. *Mix.*

By the constant and regular Use of these Applications, and keeping the Patient warm, treating him otherwise as directed, the febrile Symptoms generally disappear, the Sloughs come off, and the Sores are disposed to heal in a few Days.

It is not uncommon for Hectic Heats, Night Sweats, Want of Appetite, and Dejection of Spirits, to attend those a considerable Time who have had the Disease in a severe Manner. *Asses Milk* commonly relieves them, together with a Decoction of the *Bark* and *Elixir Vitrioli*.

The Cause of this Disease seems to be a *putrid Virus*, or *Miasma sui generis*, introduced into the Habit by Contagion, principally by Means of the Breath of the sick Person. FOTHERGILL.

This Disease, says Dr. WALL, appeared in some Parts of *Worcestershire*, chiefly in low Situations, in 1748; it then went under the Name of the *Scarlet Fever*; it was soon found to be infectious, and that the principal Seat of it was the Parts about the Fauces; the Scarlet Efflorescence on the Skin being rather
an

an accidental Symptom, than essential to the Disease. In some the Skin was covered with *Petechiæ* and purple Spots, and in one or two, where the Disease was farther advanced, large black Spots appeared on the Tonsils. Being convinced of its putrid Tendency, I prescribed the *Bark*, and other antiseptic Medicines. This Method immediately succeeded, both with regard to the *Petechiæ*, and the Ulcerations in the Throat. I recollect what I had formerly observed relating to the Small-Pox, *That nothing so immediately cures a sore Throat, in the malignant Sort, as the Bark does.* And I was soon convinced, by a Multitude of Instances, that *for the same Reason it is truly a Specifick in the Case before us.*

I soon agreed with Dr. Fothergill, that the Intentions of Cure in this Disease is, *To keep up the Vis Vitæ; to encourage the cuticular Discharges; and to conquer the spreading Putrefaction.* Therefore all Evacuations which lessen the Strength, particularly Bleeding and Purging, and all the nitrous antiphlogistic Medicines, are highly improper.

And since a *Laxity of Fibres* predisposes Persons to receive this Disease, as is evident from hence, that it affects Children more than grown Persons, Females more than Males, those who are situated in low moist Places more than those who live in a higher and drier Soil, it is manifest, both with regard to the Preservation and Cure, tonic Medicines are indicated; and among those the Bark justly claims one of the first Places.

The only certain *Diagnostics* of this Disease, are *aphthous Ulcers and Sloughs on the Tonsils, and Parts about the Pharynx.* Very few here have had the *Scarlet Efflorescence* on the Skin. With several lately it has, on its first Seizure, seemed to be complicated with a Fever of the inflammatory Kind, the Pulse being full and hard. But yet, if any Evacuations or nitrous Medicines were ordered on that Account, it has soon shewn its putrid Tendency, by the spreading of the Ulcers, sinking of the Spirits, &c. In these Persons the Blood has appeared with a fizy Crust on its Surface, but the Serum was usually of a yellowish Colour, and upon the least Motion the Cruor generally mixes with it; so that the Blood here seems to be coagulated by the internal Heat, at the same Time that the Texture of the red Globules is lax and broken.

Most Persons in the Beginning have a *Nausea* and *Vomiting*, and some a *Looseness*. They who are costive, have, upon the Use of the gentlest *Eccoprotics*, immediately been seized with a *Diarrhœa*, difficult to restrain. All Medicines which tend to move the Belly, not excepting *Rhubarb*, are extremely dangerous.

Those

Those who have had the Disease with most Violence, have had the Head always heavy and stupid, and the Eyes foul and full of Tears. Not a few have had the Head covered with *Petechiæ* and purple Spots.

The first thing to be done, is to order the hot Steam of a boiling Mixture, of Vinegar, Myrrh, and Honey to be received into the Throat, through an inverted Funnel. If it is necessary to make it still more penetrating, add some of the Spirit. *Mindereri*. This Steam can scarce be used too frequently, provided it is received with a due Degree of Heat.

This Vapour is very penetrating, resolvent, antiputrescent, and detergent, and much more efficacious than any Gargarism or Injection can be. Besides, it is less offensive to the Taste, and may be very easily and effectually applied to the affected Parts. Farther, this Steam medicates the Air, and the Chamber becomes more tolerable and less infectious to the Attendants; and the noisome Smell of the Breath is conquered, or much corrected.

If the *Primæ Viæ* seem foul, or much loaded, it may be necessary to begin the Cure by cleansing the Stomach with *Carduus Tea*, in which a little *Sal Vitrioli* is dissolved, and some other gentle and quick Emetic. No other Evacuation seems proper, and this is only to be used at the very Beginning of the Disease. If the Physician is not called in soon enough, it will be necessary to begin immediately by giving the Bark, joined with the Spirit. *Mindereri*. If an Efflorescence on the Skin appears, I sometimes add the *Pulv. Contrayerv. compos.* In a *Diarrhœa* I usually join *Cascarilla* with it, or *Lign. Campechens.* or *Decoct. alb.* or the like. And in great Sickness of the Stomach, or Lowness of the Spirits, with the *Confect. Cardiac.* But if the Putrefaction is great, and the Pulse quick and weak, I always add a few Grains of the Extract of Myrrh made with Water; or from ʒij. to ʒss. of a Decoction prepared by boiling Powder of Myrrh in ʒix. of Spring-Water to ʒvi. when strained. This I prefer to any thing else, for Myrrh is one of the best Antiseptics. If the Medicines is desired a little warmer, Myrrh in Substance may be mixed with it; for by grinding it with Sugar, and adding the Liquors gradually, it will be uniformly dissolved into a Lac, and suspended. But the Decoction or Extract sits lightest on the Stomach.

The Bark is most efficacious in Substance; but when the Strength of the Patient is much reduced, and the digestive Powers weakened, which is usual in putrid Fevers, on the very first Seizure, the Decoction or Extract may be thought preferable; but this last is seldom to be had genuine. In making

ing the Decoction, it ought to be done with as gentle a Heat as possible, and then evaporate very slowly to procure the Extract, lest it be burnt too, and that the volatile Parts may fly off as little as may be.

In the Use of the *Spiritus Mindereri*, Care should be taken that it be exactly neutralized, or rather, as the Disease is putrescent, that it may incline towards the Acid. This is particularly of Use where the Heat is very great; it being very attenuating and antiseptic.

I have been often agreeably surprized at the good Effects of the Method above recommended; if used early in this Disease, the Swelling of the Tonsils usually decreases; the Sloughs are cast off, and all the dangerous Symptoms are removed in three or four Days Time.

When the *Putrefaction* is sufficiently conquered, it will be necessary to cleanse the first Passages with a small Dose of *Rhubarb*; which is to be repeated at proper Intervals, continuing the *Bark*, &c. on the intermediate Days, for a considerable Time. For want of this Caution some Persons have been long afflicted with a constant fixed Pain in the Bowels, which seemed to proceed from some Excoriations or Ulcerations, occasioned by the Lodgment of *putrid Sanies* in the Intestines. To obviate this, in some measure, the Patient should never swallow his Spittle, and wash his Mouth always before he drinks or takes in any Sustainance.

To compleat the Cure, the Patient should enter into a Course of *Balsamics*, *Chalybeat Waters* with *Elixir Vitrioli*, and the like; in order to strengthen the Solids and invigorate the Blood; for this Disease is liable to return, especially if they have afterwards a Fever of the putrid Kind.

The *Small-pox* seems most disposed to associate with this Disease, and that not only in the malignant Sorts, but even when it is mildest and most distinct. But this is not very dangerous, because the same Method is proper in both Diseases. I have seen one Instance of a *sore Throat* and the Scarlet Eruption, complicated with the Measles. The Diaphoretic Antiseptic Method succeeded here without the *Bark*, which I was afraid to give, on account of the Cough and Straitness of the Lungs. But this is a vain Fear, says Dr. Cameron; for I used the Method above laid down, in complicated Cases of this Kind, and have had the Pleasure to observe, that both Diseases together yielded as easily as ever either of them did singly. The Fever and Cough ceased entirely on the eighth Day, though the Measles were conspicuous on the Face till the twelfth, and the Throat was not quite clear till some Days after.

after. This Method will likewise do in the *Measles alone*, omitting the Steam and the *Spiritus Mindereri*. I gave the Patients small Doses of the Bark in Substance, with a little of the watery Extract of Myrrh, every three Hours, in small Cinnamon-water sweetened with Sugar. The Measles kept their accustomed Stages, with less Disturbance and Alarm than usual.

Of the *malignant ulcerous sore Throat*, which raged in *Phymouth*, and divers Parts of *Cornwall*, chiefly in 1752, Dr. HUXHAM gives the following Account.

The *Attack* was very different in different Persons: Sometimes a Rigor, with some Fulness and Soreness of the Throat, and painful Stiffness of the Neck: Sometimes alternate Chills and Heats, with a Degree of Head-ach, Giddiness, or Drowsiness, were the first Symptoms. Others had great Pains of the Head, Back, and Limbs, a vast Oppression of the *Præcordia*, and continual Sighing. Some Adults, on the contrary, moved about for a Day or two, neither sick nor well, but under Anxiety, till forced to take to their Beds. But it commonly began with Chills and Heats, Load and Pain of the Head, Soreness of the Throat and Hoarseness, some Coughs, Sickness at Stomach, frequently vomiting and purging, in Children especially, and sometimes very severe; though the contrary was more common to the Adult. In all, great Dejection, sudden Weakness, great Heaviness and Faintness from the first. The Pulse, in general, quick, small, and fluttering, though sometimes heavy and undulating. The Urine mostly pale, thin, and crude; however, in grown Persons, small in Quantity and high-coloured, or like turbid Whey. The Eyes heavy, reddish, and as if weeping. The Countenance very often full flushed and bloated, though sometimes pale and sunk.

At Night the Symptoms became greatly aggravated, and the feverish Heat very much increased. Sometimes a *Delirium* on the first Night; and the Acerbation returned in the Evening throughout the Disease. Towards the Decline, a Phrenzy often lasted all Night, though the Patient had been cool and sedate in the Day time.

A few Hours after the Seizure, and sometimes the same Instant, a Swelling and Soreness of the Throat were perceived, the Tonsils became tumid and inflamed, and often the maxillary Glands much swelled, and suddenly at the very Beginning, sometimes even to threaten Strangulation. The *Fauces* also very soon appeared of a high florid Red, or rather bright Crimson, shining and glossy; and frequently on the *Uvula*, Tonsils, *Velum Palati*, and back Part of the *Pharynx*, several whitish,

whitish, or ash-coloured Spots appeared, sometimes increasing very fast, and soon covered one or both of the Tonsils, *Uvula*, &c. These in Event proved the *Sloughs* of superficial Ulcers (which sometimes, however, eat deep into the Parts.) The Tongue at this time, though only white and moist at the Top, was very foul at the Root, and covered with a thick, yellowish, or brown Coat. The Breath now began to be very nauseous, and at length became intolerable, sometimes even to the Patients themselves.

The second or third Day every Symptom became much more aggravated, and the Fever much more considerable; and those that had struggled with it thirty or forty Hours, were forced to submit. The Restlessness and Anxiety greatly increased, as well as the Difficulty in Swallowing. The Head was very giddy, pained, and loaded; there was generally more or less of a Delirium, sometimes a *Pervigilium* and perpetual Phrenzy, though others lay very stupid, but often starting and muttering to themselves.

The Skin was very hot, dry, and rough; rarely any Disposition to sweat. The Urine pale, thin, crude, often yellowish and turbid. Sometimes a Vomiting, and sometimes a great Looseness, especially in Children. The *Sloughs* now much enlarged, and darker, the surrounding Parts tending to livid. The Breathing more difficult, with a *rattling Stertor*, as if the Patient were strangled, and the Voice hoarse, as in *venereal Ulcers of the Fauces*. Any Person acquainted with the Disease, might know it by the Voice: None of that shrill barking Noise of inflammatory Quinseys. The Breath insufferably fetid towards the Crisis. Many, about the fourth or fifth Day, spit a vast Quantity of stinking purulent Mucus, oft tinged with Blood, and of an abominable Smell. The Nostrils sometimes greatly inflamed, and excoriated, dripping a sharp *Ichor*, or *sanious Matter*, so acrid as to corrode the Lips, Cheeks, and even Hands of Children; nay, the Fingers and Arms of their Nurses, and this attended with an incessant Sneezing. The Discharge of this Matter was in Quantity surprizing, which they would often rub on their Faces, Hands, and Arms, and blister them all over. A sudden Stoppage of it choaked them; some swallowed it, and had Excoriations of the Intestines, violent Gripings, Dysentery, &c. with Rawness of the *Anus* and Buttocks. The Wind-pipe itself was sometimes much corroded, and Pieces of its internal Membrane spit up with Blood and Corruption, whence the Patients lingered a while, and at length died tabid; but more frequently

frequently it fell violently on the Lungs, and killed like a *Peripneumony*.

In general, a very considerable *Efflorescence* broke out on the Surface of the Body, particularly in Children, most commonly the second, third, or fourth Day; sometimes partial, sometimes almost all the Body over, seldomest of all on the Face. Sometimes of the *erysipelatous* Kind, sometimes more *pustular*; the Pustules frequently very eminent, of a deep fiery red Colour, particularly on the Breast and Arms; sometimes very small, and easier felt than seen. The Efflorescence was quite of a Crimson Hue, as if the Skin had been stained with the Juice of Raspberries, and this even to the Fingers Ends; the Skin inflamed, and, as it were, swollen. This Crimson Colour of the Skin seemed, indeed, peculiar to this Disease.

An early and kind Eruption was most commonly a very good Omen, especially when followed by a very copious Desquamation of the Cuticle. But when it turned of a dusky livid, or prematurely or suddenly receded; every Symptom grew worse and worse, and the utmost Danger impended, especially if purple or black Spots appeared, as sometimes happened; the Urine grew limpid, and Convulsions came on, or a fatal Suffocation soon ensued.

The Disease was generally at the Height the fifth or sixth Day, in young Persons, in elder not so soon; and the Crisis was often protracted till the seventh or twelfth, and then very imperfect: Yet some Adults were carried off in two or three Days.

If a gentle easy Sweat came on the third or fourth Day; if the Pulse grew slow, firm, and equal; if the Sloughs cast off in a kindly Manner, and appeared at the Bottom clean and florid; if the Breathing was more soft and free, and the Eyes looked vivid; a salutary Crisis followed soon by a Continuance of Sweat, turbid farinaceous Urine, a plentiful Expectoration, and a very large Desquamation of the Cuticle. But if a Rigor came on, and the *Exanthemata* suddenly disappeared, or turned livid; if the Pulse grew quick and small, and the Skin remained hot and parched, the Breathing more difficult, the Eyes dead and glassy, the Urine pale and limpid, a Phrenzy or Coma succeeded, with a cold clammy Sweat on the Face, or Extremities; all was lost, especially if a Singultus, or Gulping in the Throat, attended, with sudden, liquid, involuntary, livid Stools, intolerably fetid.

In the malignant ulcerous sore Throat, Bleeding and Purging, to any Degree at least, were utterly improper. Instead of Bleeding, a Clyster of Milk, Sugar, and Salt, especially if

the Patient was costive, answered much better. If a Purgine attended the Attack, a few Grains of torrefied *Rhubarb*, with *Species à Scordio*, *Decoct. alb.* &c. were proper; and, if the *Diarrhœa* were profuse, a Spoonful or two of *Decoct. Fracastorii Fulleri* was frequently given, and proved an efficacious Medicine. If *Nausea* and Vomiting were urgent, a gentle Emetic, especially for Adults, was serviceable; and so far from aggravating the Pain of the Throat, that it generally relieved it. Children were puked with a little *Oxymel Scillit. Essence of Antimony*, or the like; otherwise the tenacious *Mucus* would choke them.

The next thing exhibited was, a saline Mixture of Salt of *Wormwood*, or volatile Salt of *Hartshorn*, with Juice of *Lemon*, and *Aq. Alex. simpl.* to which was added *Pulv. Contrayerv.* with a little *Myrrh* and *Saffron*: or these last were given in a Bolus, with *Nitre*, if the Fever ran high. In Adults, a Grain or two of *Camphire* might be used, if the Stomach could bear it; else *Julep à Camph.* or *Acetum Camphoratum* were used, with Syrup of *Black Currants*, *Raspberries*, or the like. The second or third Day, to the saline Mixture, or a temperate Cordial *Julep*, was added a little *Tinct. Cort. Peruvian Alexipharmac.*

Elixir Vitrioli, with the Tincture of the Bark, was commonly given (except to young Children,) and frequently the Elixir was taken out of an Infusion of a roasted *Seville Orange* in Claret; or red Port Wine and Water was allowed.

The common Gargle was, a Decoction of *Figs*, *Red Rose-leaves*, *Myrrh* and *Honey* in rough Cyder, and a thin Mucilage of *Quince-seeds*, with Syrup of *Raspberries*, or *black Currants*, and a little Tincture of *Myrrh per se*, and *Spirit of Vitriol*, every now and then, especially after Gargling. And the Fumes of *Red Rose-leaves*, *Chamomile Flowers*, *Myrrh*, and *Camphire*, boiled in *Vinegar*, were ordered to be drawn in with the Breath very often, as hot as could be borne.

The Swelling of the Neck, parotid Glands, &c. being of a critical Tendency, were promoted by acrid Cataplasms, Blisters, &c. laid over the Throat, sometimes from Ear to Ear, with great Success.

When there was a Tension and Tumour of the Belly, with some Degree of a Suppression of Urine, an emollient Fetus, with some of the Carminative Seeds, or a few *Chamomile Flowers*, boiled in Milk and Water, and a Clyster of the same, with Salt and Sugar, were necessary. If the Abdomen was very tense, and the Patient costive about the fifth or sixth Day, a Dose of *Rhubarb*, *Manna*, or *Lenitive Electuary* was given, and after that commonly the Bark in Substance, but not before some Signs of Coction appeared.

How-

However improper Purging might be at the Beginning of this Distemper, gentle easy *Cathartics*, as *Rhubarb*, *Manna*, &c. were necessary at the End, to carry off the putrid Colluvies of the Intestines, which otherwise protracted the feverish Heats, and occasioned great Weakness, Want of Appetite, tumid Bellies, and great Obstructions of the Glands. But, in general, after a Purge or two, the Sick recovered a keen Appetite, Strength, and Spirits.

Of a PHRENZY.

A PHRENZY, if a Primary Disease, is a true Inflammation of the *Dura* and *Pia Mater*; if *Symptomatical*, the inflammatory Matter is translated into the *Meninges* of the Brain from some other Part.

The *Primary Phrenzy* is preceded by Heat and a violent inflammatory Pain within the Head, a Redness of the Eyes and Face, unquiet and troubled Sleep, a slight Degree of Folly, Watching, Sadness, Fierceness, sudden Forgetfulness, a gathering of Threads from the Bedcloaths. (This is very seldom met with in these Parts of the World.)

A *Symptomatic Phrenzy* succeeds any acute Disease; but it is worst when it is preceded by an Inflammation of the *Pleura*, Lungs, or Diaphragm. A black Tongue, an obstinate Costiveness, Suppression of Urine, white Fæces (which is always a fatal Sign,) pale, discoloured, thin Urine, a Wildness in the Looks and Actions, with a red Visage, a black Cloud in the Urine, and Watching, are Signs of an approaching Inflammation in the Head. BOERHAAVE.

The *Symptomatic Phrenzy* sometimes appears in the State of *malignant*, *eruptive*, and *spotted-Fevers*, the *Small-Pox*, malignant catarrhal Fevers, Camp Fevers, particularly the *Hungaric*, especially when they are injudiciously treated. It generally supervenes about the critical Days, with a *Rigor*, trembling of the Joints, Tension of the *Præcordia*, and Coldness of the external Parts, with thin Urine. The Patient being weakened with the preceding Disease and long Watching, which debilitates the Tone of the Vessels of the Membranes of the Brain; whence the *Stases* are not to be resolved, and whence the Patient is generally killed on the third Day.

A *Phrenzy* is to be distinguished from that slight Alienation of Mind which happens in acute Fevers, before the critical Eruption.

tion. This goes off readily, nor is the Urine thin and watery, nor is attended with a *Rigor* and a Refrigeration of the external Parts; As also from a Desipience and Raving, from a great Loss of Strength and Weakness of the Brain after the Declination of an acute Fever; for this will go as the Strength returns, either spontaneously, or with proper Remedies.

Both Kinds, when present, have the following Symptoms:

A Deprivation of the Ideas of sensible Things, as also of the Faculties of the Mind and Affections; an unruly Fierceness and Wildness; an unquiet and often turbulent Sleep, a Respiration slow and great, the Face often exceeding red, the Aspect grim, the Looks fierce, the Eyes wild and protuberant, a Drooping of the Nose.

A *Phrenzy* is generally fatal on the *third, fourth, or seventh Day*; which last it seldom exceeds.

When it does, and is violent, it often ends in Madness, which increasing gradually, the Patient becomes raving mad.

It often terminates in a Lethargy, *Coma*, or *Catoche*. BOERH.

The *Aliment* ought to be slender, of farinaceous Substances, as Water-gruel acidulated; the *Drink*, Barley-water, Small-beer, or the Decoction of *Tamarinds*.

This Disease, of all others, requires the speediest Applications; profuse Hæmorrhages of the Nose often resolve it, and copious Bleeding, by opening the Temporal Arteries, is the most efficacious Remedy. ARBUTHNOT.

The *Cure* of this Disease requires diligent Attention to the following Things:

Varices of the Veins, or the *Bleeding Piles* are beneficial.

A Looseness is likewise good.

A Pain in the Breast and Feet, or a violent Cough supervening, often puts an End to the Disease; as also an *Hæmorrhage*.

Therefore plentiful Bleeding is necessary, through a large Orifice, or open several Veins at the same Time, viz. the Jugular, the Frontal, and a Vein in the Foot. BOERH.

Hoffman, from Experience, prefers the bleeding at the Nose, procured by thrusting up a Straw, a Pen, or a Skewer; or, as Pringle advises, apply six or seven Leeches to the Temples. The rest of the Cure consists in Blisters, and things common to other inflammatory Fevers.

The Cure of the *Symptomatic Phrenzy*, if the Pulse will bear it, is by opening a Vein; but if this cannot be done by reason of great Lowness, it is to be attempted by Leeches and Blisters. It is usual to begin with blistering the Head, but in military Hospitals that is to be left to the last. The best internal Medicines are *Nitre* and *Camphire*. Hoffman's Proportion is six Grains

Grains of Nitre to one of Camphire. Small Doses of which are to be often repeated.

But when this Disease is apprehended from the Suppression of the *Lochia*, or the *Menses*, speedy and copious Bleeding in the Foot will be necessary. If from a Stoppage of the Bleeding Piles, then Leeches must be applied to the hæmorrhoidal Veins.

After Bleeding, *Cathartics* are proper; among which, the following is preferable to all others:

- 1 R. *Mannæ ad minimum* ℥ij. *Cremor. Tart.* ʒij. *Nitr.* ʒss.
Ol. Amygd. dulc. ℥j. *Ser. Lact.* ℔j. *M.*

The Patient's Drink should be sweet Whey, or acidulated by turning the Milk with Citron or Lemon Juice, and sweetened with *Syr. e Meconio*. To every Quart add a Dram of purified Nitre, or *Sal Prunella*. Also Emulsions are convenient, of the four Cold Seeds, with Barley-water, to every Quart of which add two Scruples of Nitre.

Externally, warm Baths are proper for the Feet, or Linen Cloths dipped in hot Water, and applied to the Feet. But especially let the Head be shaved all over, and embrocated with the following Mixture:

2. R. *Acet. Rosar.* [vel. *Acet. acerrim.*] ℥ij. *Spir. Rosar. in quo gt. x. Camphor. Solut.* [vel *Spir. Vinos. Camphor.*] ʒij. *Nitr. pur.* ʒij. *Ol. Ligh. Rhod. gutt. xx. M. Hoff.* Or,
3. [R. *Acet. acerrim. Spir. Vin. Camph. Lavend. comp. Spir. Volat. Aromat. Spir. Rosmarin. an.* ʒss. *M. F. Embrocatio.*]

Antiphlogistic Clysters are likewise proper: But if all these Means fail, Recourse must be had to Cupping in the lower Parts, to Opiates, and mild Blisters. *BOERH. Hoffman* is of Opinion, that the two latter will do more Hurt than good in this Disease. After all, *Boerhaave* advises the Physician to consider, if the Case be *Symptomatical*, how far the foregoing Method, or any Part of it, is consistent with the primary Disease.

Of the PLEURISY.

THE *Pleurisy* is most predominant between the Spring and the Summer.

It begins with *Chillness* and *Shivering*, which are soon succeeded by Heat, Thirst, Inquietude, and the other common Symptoms of a Fever.

After a few Hours the Patient is seized with a *violent pricking Pain* in one of his Sides, about the Ribs; which sometimes extends itself towards the Shoulder-Blades, sometimes towards the Back Bone, and sometimes towards the Fore-parts of the Breast; and this is attended with frequent Coughing.

The Matter which the Patient spits at first is little and thin, and mixed with Particles of Blood; but as the Disease advances, it is more plentiful and more concocted, but not without a Mixture of Blood.

The *Fever* keeps an equal Pace with the Cough, Pain, and Spitting of Blood; and in Proportion as the Expectoration becomes more free, it sensibly decreases; sometimes the Body is costive, sometimes too open.

The *Blood* drawn from a Vein, as soon as it is cold, looks like melted Suet. SYDENHAM.

In this Disease the Pulse is remarkably hard, and seems to vibrate like a tense String of a musical Instrument, which is the *pathognomonic* Sign; and as for a *Spitting*, it is more commonly absent than some will allow. HUXHAM.

Hence *Pleurisies* are distinguished into the *moist* and the *dry*. It is likewise observable, that the *Pain* in the Side is more *intense* at the Time of *Inspiration*, but more *mild* at the Time of *Expiration*. BOERH.

There is no *Fever* wherein the *Crisis* are more regular than in the *Pleurisy* and *Peripneumony*: For in young Persons, and those of a full Habit of Body, *bloody Spittle* generally appears on the *fourth* Day, and on the *seventh* the Disease terminates by a *profuse Sweat*. But in the *Phlegmatic* and more *Inactive*, as also those in whom the Disease has taken deeper hold of the Lungs, it will continue till the *eleventh* or *fourteenth* Day; going off partly by *Expectoration*, partly by *Sweat*: Then the Pulse becomes more soft, and the Patient falls into an easy, refreshing Sleep.

But when, on *critical Days*, the *Crisis* is imperfect, there is, indeed, a *Sweat*; but it neither eases the Patient, nor terminates the *Disease*. When it continues till the *twenty-first* Day, there is Reason to fear a dangerous Abscess in the Breast. It is therefore a good Sign when the Expectoration proceeds from the Bottom of the Lungs, bringing up a viscid Matter, on the *fourth* Day, mixed with Blood, afterwards *yellow*, and sometimes *purulent*. The sooner the Expectoration happens, the greater the Hopes of Recovery: the later, the contrary.

A *Looseness* is not safe; Urine, without a Sediment, is a suspected Sign; and a *profuse Sweat*, unless on critical Days, is still worse. On the *eleventh* and *twelfth* Days a Looseness is
not

not much to be feared, unless too great, for it sometimes carries off purulent Matter. If a *bleeding* at the *Nose* happens about the *fourth Day*, it is generally attended with a remarkable Alteration of the Disease.

Those who die of an *Inflammation* of the Lungs, are suffocated; because the Matter, adhering to the Vessels and bronchial Ducts, cannot be coughed or hawked up. When the Lungs have been opened, they were found inflated; hard, like Liver; and the Vessels being stuffed with a thick tenacious Blood, they have sunk to the Bottom of the Water, being thrown in. Some have had their Lungs beset with small Abscesses and hard Tubercles, and the *Pleura*, adhering to the Lungs, inflamed and mortified. Others had polypous Concretions in the pulmonary Vein and the great Artery, and hindered the free Passage of the Blood through the Lungs, which produced an Inflammation.

As in all *inflammatory Fevers*, so in this, too hot a *Regimen* is to be shunned, both with respect to the Bed-cloaths and the Heat of the Room; nor must the Patient be exposed to the cold Air, nor drink Things actually cold. Likewise all *strong Sudorifics*, *Diuretics*, and *Cathartics* are hurtful. And if the Patient has three or four Stools, the Course of Nature must not be stopped.

HOFFMAN.

The *DIET* should be cooling, relaxing, slender, and diluting. ARBUTH. Moistening things taken warm are preferable to all others, as I have found by Experience: Hence, Barley or Oatmeal-gruel, sweetened with Honey, is proper, as also sweet Whey.

The *Indications of Cure* are, 1. To prevent the farther *Stasis* and Stagnation of the Blood. 2. To dilute and dissolve the *Lentor* of the Blood in *Pleuritics*. 3. To mollify, ease, and relax the Spasm, Pain, and copious Afflux, in order to put the impacted Blood again into Motion by the Help of the Appulse of the arterial Blood. 4. To promote the Excretion of the viscid bloody, and purulent Matter, adhering to the Bronchia of the Lungs, so that it may be brought up, and an Abscess prevented.

Take away *ten Ounces* of Blood, on the Side of the Part affected. SYD. If the Physician is called before the *third Day*, the Patient, lying on his Back, must lose a large Quantity of Blood from a wide Orifice in a large Vessel, and fetch deep Sighs, or cough, to promote its Celerity; and the Part affected should be rubbed gently at the same Time. The Bleeding should be continued till the Pain remits, or the Patient is ready to faint. It should be repeated as often as the Symptoms return which it was intended to remove. The Absence of the white inflammatory Pellicle from the Surface of the Blood, when cold, shews it is Time to leave it off. BOERH. This *Huxham* confirms by his

own Experience, and adds; that after the *fourth* Day, Bleeding is not safe. He likewise recommends *fomenting* the Part, which often eases the Pain, and terminates the Disease. But if it is obstinate, he recommends *slight Scarifications*; then *Cupping*, afterwards a *Blister* on the same Place, which has been successful when the usual Methods failed. An *emollient-cooling Clyster* should immediately succeed Bleeding, especially if the Body is costive. And *nitrous Medicines*, with a cooling, emollient, diluting Regimen, should be forthwith entered upon. Thin Whey, a Decoction of Barley and Red Poppies, and Emulsions, will serve for Drink.

Pringle says, whenever the Spitting begins, the Bleeding must be omitted, or so moderated as to relieve the Breast without impairing the Strength and checking the Expectoration. Besides, *Blisters* not only shorten the Cure, but prevent the Loss of a great deal of Blood. For a large Blister laid to the Side affected, immediately after the first Bleeding, is a proper Remedy, because it resolves the Obstruction and removes the Fever. This applied to another Part, might increase the Disease. These Blisters may be as large as the Hand with the Fingers. If a Surgeon is not in the Way, it may be laid on first; but the Patient must lose Blood as soon as possible.

Though the Symptoms should vanish on blistering, it will be more secure to bleed again; unless a *profuse Sweat* comes on with Relief from Pain, and makes all other Remedies unnecessary. But if the Lungs are likewise inflamed, the Cure cannot be so speedy; for though the first Bleeding and a Blister should give Ease, yet a Repetition will be needful. Sometimes the Stitch returns and fixes on the other Side: But this may be treated as the first, with the same Success. PRINGLE.

1 R. Aq. Papav. Rhæad. [vel Fœnicul.] ℥iv. Sal. Prunel. ʒj. Syr. Violar. ʒj. M. F. Haustus, sumendus statim a primâ Venæsectione.

2 R. Amygd. dulc. excorticat. No. v. Sem. Melon. Pepon. an. ʒiſs. Sem. Papav. alb. ʒiiij. Aq. Hordeat. ℥iſs. Aq. Rosar. ʒij. cum. q. s. Sacchar. Cand. F. Emulsio, capiat ℥iv. quaque Hora.

3 R. Decoct. Pectoral. ℥ij. Syr. Violar. & Pectoral. an ʒiſs. M. F. Apozem. Capiat. ℥. ter in die. SYDENH.

Or instead of this last, the following, from Hoffman, may be used:

4 R. Herb. Veronic. Chærefol. Salv. an. Manip. ij. Rad. Li- quorit. ʒj. Sem. Fœnicul. ʒiiij. Pour hot Water on these Ingre-

Ingredients, and drink four or five Cups of the Infusion pretty often, in the Manner of Tea.

He likewise advises the following Powder :

5. R. Pulv. à Chel. Canc. comp. ℥iij. Rasur. Corn. C. Calc. Antimon. an. ʒj. Nitr. pur. ʒss. Cinnab. Antimon. gr. xv. F. Pulvis, de quo cap. ʒss. omni triborio, interposito Potu infusi Theiformis.

If the Pleurisy is of a bad Kind, and Nature is a little sluggish, half a Grain of Camphire may be added to every Dose, which will check the Progress of the Inflammation. HOFF.

Or, the Patient may make Use of the Drink following :

6. R. Aq. Hordeat. ℥xl. Nitr. ʒij. Oxymel. ℥iv. M. Bibat ʒij. calidè omni horâ quadrant. BOERH.

Huxham lays a great Stress on Camphire and Nitre, joined with small Doses of the Paregoric Elixir; and if there is a vehement Pain, he thinks Opiates may be properly joined with them, as they have a great Power of relaxing the over tense Fibres, of moderating the too rapid Course of the Blood, and of promoting the Concoction of the morbid Matter. Hence, after the Use of Opium, there is generally a copious Sediment of the Urine.

Opiates may be given, but with Caution: For as long as the Pulse is hard, the Breathing difficult, or when Watchfulness is owing to the Fever, they do manifest Harm. But when the Fever is over, and Sleep is only prevented by a thin Defluxion on the Lungs, Opium will both give Rest and promote the Spitting. But if the Body keeps open, and the Head is affected by the Paregoric, Salt of Hartshorn is the best Corrector. PRINGLE.

Anodynes and Opiates have been advised to ease violent Pains; but take Care to avoid them when the Patient is old, when there is a Thickness of the Humours, and when the Inflammation lies deep. It is best to give nothing stronger than the Emulsions of White Poppy Seeds, or Syrup of Poppies. HOFFMAN.

7. R. Ol. Amygd. dulc. ʒij. Syr. Violar. & Pectoral. an. ʒj. Sacchar. Cand. q. s. M. F. Eclegma; de quo sæpius lambat. SYDENH.

Or this, to promote Expectoration :

8. R. Ol. Amygd. dulc. ʒss. Sperm. Cet. ʒij. Croc. gr. x. Syr. Violar. Sacchar. Cand. an. ʒifs. M. F. de quo crebrius quicquam deglutendum.

Ex-

Expectorants and *Linctus's* ought not to be given on the first Days, but when the Matter is concocted, moveable, and fit for Excretion. HOFFMAN.

To ease the Pain in the Side:

9. R. Ol. Amygd. dulc. Lilior. & Unguent. ex Alibaa an. ʒj. M. F. Linimentum, quo inungatur Latus affectum mane & serò, superimponendo Fol. Brassicæ. SYDENHAM.

Or this, to ease the Pain and discuss the Inflammation:

10. R. Pingued. Capon. ʒj. Camphor. ʒss. M. F. Linimentum calidè applicandum.

It is necessary that the Body be kept open, and the Bowels free from Spasms, to which Purposes *emollient Clysters* are proper, with Oil of Sweet Almonds.

11. R. Decocti Avenac. tenuior ℥j. Flor. Chamamel. vulg. Manip. j. Coque & colatur. Adde Ol. Amygd. dulc. ʒij. Sal. commun. ʒij. Nitri ʒj. M. F. Enema. HOFFMAN.

In the first Stage of the Pleurisy or Peripneumony, Laxative Clysters and the cooler Diaphoretics are proper; but all Cathartics and warm Sudorifics do Harm. The Time for attempting the *Diaphoresis* is when the Person finds Ease by the Blister: But whenever the Spitting begins, the Diaphoretics must either be omitted or joined to Expectorants; whereof the chief is *Oxymel of Squills*; or in great Heat or Drought some more pleasant Acid. But in *Lowness*, after repeated Bleedings, give *Salt of Hartshorn* joined to some Oil: This will raise the Pulse and promote Expectoration when it flags.

If, notwithstanding the Discharge, the Breast continues to labour, Bleeding is still requisite: For the Lungs are not to be overpowered by the Omission of Bleeding: Nor is the Suppression of the Spitting to be hazarded by Bleeding too freely. But with regard to *Blisters* there need be little Caution, as they are always seasonable, to raise, relieve the Breast, and to promote Expectoration.

In the Course of Expectoration, a Vomit will sometimes be useful in discharging the Load of viscid Phlegm. If the Phlegm is tough, or the Patient costive, and Opiates are given, they must be joined with Squills.

When the Pleurisy ends in a Suppuration or Abscess, the Signs are, a slight, vague Shivering, which often returns without any evident Cause; a Remission of the Pain, while the Difficulty of Breathing remains; a Redness of the Cheeks and Lips; Thirst; a *Febricula*, or slight Fever, especially in the Evening; a weak, soft Pulse.

When

When the *Abscess* is actually formed, there is an obstinate, dry Cough, which increases after Feeding, or Motion. The Breathing is difficult, small, thick, short, and wheezing; worse after Eating and Motion. The Patient can only lie on the Side affected: A slow, periodical Fever, which is exasperated with Stirring and Eating; a decayed Appetite, great Thirst, nocturnal Sweats, Paleness, Leanness, and excessive Weakness.

This either ends in a Consumption, or the Matter falls into the Cavity of the *Thorax*, and so becomes an *Empyema*; which see.

Sometimes the Matter of the *Abscess* is translated to some other Part, as the Brain, Liver, or Spleen, which is fatal. Sometimes it occasions an *Abscess* behind the Ears, in the Legs, or Hypochondria. BOERHAAVE.

A Cough is almost a perpetual Attendant on a Pleurisy; and since Expectoration is of the utmost Consequence, and frequently terminates the Disease, it behoves every skilful Physician, in the Beginning of a Pleurisy, ever to observe whether the Cough be attended with a Spitting, and of what Kind it is: For a dry Pleurisy is by all condemned as the most dangerous, troublesome to treat, and difficult to bring to a Concoction or Crisis; it either carrying off the Patient with great Rapidity, or continuing for a very considerable Time: Even a Spitting intermixed with Blood, in this Case, is far better than where there is no Expectoration at all.

It is an Observation of the learned *Triller*, that a Pleurisy which attacks the Right Side, is not so dangerous, stubborn, or inveterate, as when the Left Side is affected, which proves often fatal on the third or fourth Day, especially to Persons who are very hard Drinkers.

An original Pleurisy generally requires copious and repeated Bleeding: The symptomatical, or that which happens in Consequence of other epidemic Diseases, will not bear it so well, at least no Repetitions of it.

Pleurisies are seldom more severe, or more suddenly fatal, than when they happen upon excessive and sudden Drinking of cold Liquors when the Body has been much heated. The Blood of a healthy Person, drawn into a Vessel of cold Water, instantly concretes into Threads of an almost solid Consistence. Now when Plenty of cold Drink is swallowed down the *Oesophagus*, which descends in its Course very near the Trunks of the intercostal Arteries, it becomes filled or distended with it; the whole Stomach, in like Manner, being charged with the cold Drink, instantly imparts the unusual Coldness thereof to the adjacent Diaphragm, Liver, Spleen, &c. The Trunk of the ascending

ascending Cava, and the large right Sinus of the Heart, incumbent on the thin tendinous Part of the Diaphragm, are likewise affected, and by disposing the Blood there collected to a Concretion, impede its proper Passage through the Lungs.

The Breathing is greatly injured, because, at the Time of Inspiration, the Ribs must, of Necessity, be drawn from each other; and the inflamed and tense Parts be consequently stretched and extended, with a great Increase of the Pain. Upon this Account, such miserable Patients hardly breathe Air sufficient to dilate the Lungs; whereby the right Ventricle of the Heart becomes unable to empty itself so freely as it ought to do. The Blood, therefore, returning from the Head by the jugular Veins, cannot now find any Admittance into the right Sinus and Auricle, already full; whence the Brain is compressed by the turgid Vessels, and the Patient becomes dull, stupid, and less sensible of Pain; and whilst the Lungs are gradually more and more overcharged with Blood, he soon expires, suffocated. And it is very worthy of Remark, that Pleuritics perish in the Height of the Distemper, not from the Inflammation of the Pleura, nor of the Parts contiguous to, or incumbent on, the Ribs; but are suffocated by a Repletion or Oppilation of the Lungs, for want of a due Respiration.

It is to be observed, that when a Pleurisy has continued three or four Days, without having had any necessary Assistance, it seldom or never is cured by any innocent or mild Resolution: For then the Violence of the Disease usually gives Rise to Maladies in other Parts; and more especially in the Lungs.

Triller has very justly observed, that Pleuritic Patients generally escape by the Help of Nature, often even without Bleeding, provided a copious Flux of florid or purple Blood from the Nose happens between the *first and the fifth Day*. And Hippocrates pronounces, that *Urine of a slight reddish Colour, and a moderate Sediment, denotes a sure and safe Crisis in Pleurisies*. If such a Urine flows plentifully, and deposits such a Sediment, with Relief of all the Symptoms, we are then sure the morbid Matter is discharging itself; and we have more especially Hopes, that the Disease will terminate that Way, if this happens in the Beginning, before any of the Humours become vitiated by a long Continuance of the Distemper: For, if this Urine is voided towards the Close of the Disease, it will very rarely be removed by that Discharge only.

If the Pain invades the Back, Shoulders, or Arm, and evidently abates in the Pleuritic Side, it is a very happy Sign; such Patients generally recovering, which is very remarkable. *These Translations happen ofteneſt upon the ſixth Day of the Diſeaſe*

This

This Metastasis, however, does not appear to cure the Disease, but is rather a Forerunner of a salutary Crisis.

A white, concreted, or Pus-like Expectoration, has been often known to cure a Pleurisy.

Expectorations of a yellow Colour, intermixed with Blood, are salutary. *Hippocrates* has recorded those *Pleurisies to be of the mildest Kind, in which the Spitting is somewhat bloody.* In this Case, however, Bleeding is to be forbidden, which would suppress this Expectoration, and kill the Patient.

In a violent Pleurisy, although by a happy Treatment, the Matter of the Distemper may be dissolved, and rendered fluxile; it hardly ever happens, that this Matter can be again assimilated with the healthy Juices, so as to circulate with them freely, and without Injury to the vascular System, which it almost constantly stimulates to such a Degree, as to force it to throw the same off by some Out-let or another, in a sensible Discharge from the Body. This Caution is very necessary, lest any one should hesitate to order Bleeding in the Beginning of a Pleurisy, thinking it might hinder the salutary Endeavours of Nature to expel the morbid Matter.

It sometimes happens, in a Pleurisy, that the Breast can, by no Means, be dilated or moved, on Account of the Violence of the Pain, whence the Lungs transmit but very little Blood; for which Reason, the large Veins are very full and turgid, but the Aorta, receiving only a little Blood, does not press forward that which is contained in the Veins with any great Force; so that, upon opening a Vein, there often issues out but a small Quantity of Blood: But as soon as the Patient expands them by Sighing, or shocks them by Coughing, the Blood issues forth with Imperuosity. *Tulpius* therefore advises Physicians, in such Cases, to persuade their Patients to cough: But, as the Pain is often so severe, that the least Dilatation of the Breast throws them into Convulsions, it is not an easy Matter to prevail on them to do it. Under such Circumstances, it will be expedient to give some Sternutatory, or a Spoonful of hot Vinegar, whereby an involuntary Cough may be excited, which may suddenly remove the Pain, or greatly abate it at least.

We should be cautious not to bleed to Fainting, lest a Peripneumony should follow; for when the Heart, in a Delirium, ceases to move, the Blood in the right Sinus, Auricle, and Ventricle, often stagnates for some little Time, and being, in this inflammatory Malady, greatly inclined to inspissate and concrete, it will, in some Degree, enter before the Patient can be recovered from his fainting Fit; and may therefore adhere, and be unable to pass the smaller Vessels of the Lungs through
which

which it should circulate, and so be productive of a Peripneumony, which would be of much more dangerous Consequence than the Pleurisy itself.

Triller gives a Case, to prove how effectual Bleeding may be, even when the Patient is extremely weak, and all the Symptoms are, notwithstanding, aggravated to a Degree of Violence. In a robust Youth, under a most severe Pleurisy, after two plentiful Bleedings, the Disease seemed to change for the better; but on the fifth Day, the Symptoms returned with great Violence, so that, in spite of Clysters and Vesicatories, the Patient seemed to be in the most imminent Danger. A large Orifice was made in the Veins of both Feet, now grown so cold, that though they were fomented with warm Water, not a Drop of Blood came; upon which Water was continued to be poured upon them, so hot as to fetch off the Cuticle, and then the Veins bled plentifully enough, and so effectually, that the Patient, almost half expiring, revived, and was most happily cured.

Sydenham bled his pleuritic Patients, as soon as he was called to them, from the Arm of the affected Side; but when he afterwards repeated the Venesection, he makes no mention of the Part from which the Blood was taken. *Hildanus* observes, that he seldom or never found the desired Success from Bleeding in the Arm opposite to the Pleurisy; and *Triller* confirms this also, as to the first Bleeding; for the second, he rather prefers the Foot of the same Side; and then in the opposite Foot, if there should be a Necessity for a third or fourth Bleeding; but he very justly remarks, that the first Bleeding should be of all the most copious.

In this Case, a Solution of *Venice Soap*, in equal Parts of warm Water and new Milk, has been found a comfortable Fomentation; or half an Ounce of Soap to a Pint of the *Emollient Decoction*, in which Flannels were dipped and laid upon the Side, and hot Tiles placed over to keep the Fomentation from cooling too soon. In the Night-time, that the Fomentations may not be troublesome, the Side may be first rubbed with *Ung. de Althæa*, and then covered with a Melilot Plaister. A simple Decoction of Barley, with Oxymel and Nitre, is often sufficient here, since this includes all the Qualities necessary towards a Cure; for it dilutes by being watery, relaxes and eases by the intermixed mealy Mucilage, while the Honey and Vinegar very well dissolve the inflammatory Size; as also does the Nitre, and abates the Heat.

These Patients should never be kept too hot, but be taken out of Bed a few Hours every Day, if their Strength will bear

bear it; nor should they be over-loaded with Bed-cloaths. Copious Bleedings, and other cooling Remedies, will avail but little without this Precaution.

Lastly, great Prudence is necessary in regulating the Diet of recovering Partients; for too sudden a Repletion would endanger a fatal Relapse. VAN SWIETEN.

Of the BASTARD PLEURISY.

HOFFMAN is of Opinion, that the Seat of every genuine Pleurisy is in the Lungs, as appears from the opening of those that die of this Disease. In the *Hospital of the Holy Ghost, at Rome*, there were three Hundred Instances of this Truth; for they had all one Lobe of the Lungs affected, which was full of Matter, without any sensible Disorder of the *Pleura*.

Therefore, if the Inflammation occupies the external Parts only, it is a BASTARD PLEURISY: If the external Surface of the Lungs, like an *Erysipelas*, it is a genuine Pleurisy. *Riverius* likewise observes, that some affirm that the Lungs are affected in every true Pleurisy, which is confirmed by Authority, Reason, and Experience: For *Hippocrates* says, if both Lobes of the Lungs are inflamed, it is a *Peripneumony*; if one, a *Pleurisy*. And we all know, that the general Signs of a Pleurisy are also the Signs of a Peripneumony, such as a Cough, a continual Fever, Difficulty of Breathing, and bloody Spittle. Hence it is reasonable to conclude, that the Diseases are of the same Nature; add to these, that the *Prognostics* and *Cure* of both Diseases are the same; as also the Bodies of Pleuritics having been opened, the Lungs have been always inflamed. But he thinks that when any have died of this Disease, the Inflammation has crept to the Lungs; and that, in some, the *Pleura* only had been corrupted. And *Huxham* thinks, that because *Pleurisies* are apt to bring on more or less of a Peripneumony, it is a Cause why we meet with many more Pleuritic Fevers, accompanied with peripneumonic Symptoms, than true and exquisite Pleurisies. When a severe Pain in the Breast is attended with an acute Fever, a Load at the Breast, Cough, Difficulty of Breathing, Expectoration or Spitting of Blood, it is very properly denominated a PLEURO-PERIPNEUMONY. Thus much in general.

A BASTARD PLEURISY is attended with a very acute and pricking Pain in the Side, which is exasperated by the Touch. Lying on the affected Side is difficult; there is a dry Cough, without

without the Ejection of purulent or Bloody Matter, which, if strong, increases the Pain. There is likewise a Fever, with a hardish, depressed, and frequent Pulse.

The Cause does not seem to be in the Blood, but rather in the *Stasis* of an acrid Serum, at the Connection of the Ends of the fine azygous Arteries and Veins; as also of the lymphatic Vessels of the *Pleura*, and likewise in the *Periostrum* of the Ribs, where the Sense is more acute.

Hence it is nothing else but a Kind of *Rheumatism*, and is common to those who are now and then troubled with Catarrhs, rheumatic and arthritic Pains, of a *Hemicrania*; especially if they come out of a hot Air into a cold, or the contrary, particularly in the Evening.

This does not require Bleeding, unless there is a remarkable *Plethora*; but a *Diaphoresis*, and a more free Perspiration. On the seventh Day it generally disappears, and is without Danger. HOFFMAN.

Lanciscus advises to bleed plentifully in the Arm, and to scarify the Part affected. After this, two Cupping-glasses are to be applied thereto, which will cure the Disease as if by Enchantment.

In the Winter Season, that is, in *January*, many fell ill of a *spurious Pleurisy*, which was attended with a high Fever, an acute Pain in the Side, a dry Cough, exciting a most intolerable Pain, and Want of Sleep. They were bled in the Arm, and a buff Coat was generally on the Blood. They drank freely of thin Water-gruel, with Sage boiled in it. They were under a temperate Regimen, and took a Powder consisting of Nitre, diaphoretic Antimony, and Crabs-eyes, sometimes mixed with Vinegar and a few Ounces of *Carduus Benedictus* Water. Externally, hot Linen Cloths were laid to the Part affected. Thus the Disease disappeared on the seventh, eleventh, or fourteenth Day, with a large Sweat. Some young Patients, who did not lose Blood enough, had a salutary Bleeding at the Nose on the seventh or ninth Day; and the Pulse was rather depressed than quick through the whole Course of the Disease: If the Fever continued to the tenth or fourteenth Day, as it did in some, they had an Eruption of red miliary Pustules, beset with white watery Vesicles, in all Parts of the Body. However, there was nothing given but *bezoardic Powders* and Nitre, with a large tepid Draught of the Decoction of Barley, and thin Water-gruel. Only one died with a Pleurisy and a spotted Fever.

Hoffman observes on this History, that those are apt to fall into a *Bastard Pleurisy*, who are much exposed to a moist, cold autumnal or wintery Air: For there are no Diseases, or in-
 inflammatory

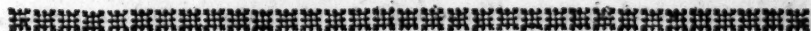
Inflammatory Fevers so soon generated by the *Intemperies*, Inequality, and Change of the Air, as those of the Breast. When the Summer has been hot and dry, and the Weather has suddenly changed to cold, with a northerly Wind, not only catarrhal Defluxions have ensued, but Rheumatisms and Pleurisies, with bloody Spittle and violent Pains in the Side, have been very frequent. For the Air, from continual Inspiration, immediately affects the Lungs internally, and externally the Thorax and Ribs, which are beset with thin Muscles, membranous Nerves and Vessels; for which Reason, spastic Crispatures are readily induced, and the free Circulation of the Humours stopped.

The *Physician* was quite in the right to direct Bleeding in the above spurious Pleurisy, on Account of the Plenty of gross Blood which is generated in the Winter; though it is not so when the Body is more replenished with Serum. Besides, Ointments, nor oleous Liniments, nor even moist Applications, are very proper in the *Bastard Pleurisy*; because they hinder Perspiration, which is so necessary to discuss the stagnating Humours, and to cause them to fly off.

The best Way is to keep the Part affected in a temperate and equal Heat, in a warm Bed; especially as the Skin of every Patient, as in the Gout and *Erysipelas*, cannot bear Topics.

Last of all, we are not to confound the Red miliar Pustules with the White; for the former are by far more friendly to Nature, and do not proceed from a putrescent and vapid Serum, but rather from that which is sharp and scorbutic; for which Reason, if they are cautiously and carefully treated, there is no great Danger attending them.

Riverius and other Authors agree, that in the Bastard Pleurisy the Patients cannot lie on the affected Side; the contrary to which happens in the true Pleurisy.



Of a PERIPNEUMONY.

THOUGH there are several Observations in the *preceding Section* which relate to this Disease, yet as it is common either as an original Malady, or the Consequent of some other, as *Huxham* observes, it cannot be too carefully studied.

There are, as that Author observes, several Kinds of this Disease. For it may arise from a violent *Inflammation of the Lungs*, by a very sily, dense Blood obstructing very many of the Pulmonic and Bronchial Arteries; or from an Obstruction of the

Lungs by a heavy, viscid, pituitous Matter. This is called a *Spurious*, or *Bastard Peripneumony*; or from a thin, acrid Defluxion on the Lungs, and then it is a *Catarrhal Peripneumony*.

The *Symptoms common to all*, are a Load at the Breast, a short difficult Breathing, and more or less of a Fever. But in a *true Peripneumony*, as *Hoffman* observes, there is a more tensive Pain than in the Pleurisy; besides, it is rather more obtuse and pressing than acute, and shoots as far as the Back and *Scapulae*. But the Difficulty of Breathing is greater, as well as the Anxiety and Expectoration, whereby a variegated Spittle is brought up, which lay as it were very deep; for in this Disease the Vessels of the Lungs themselves, whereby the Blood circulates from one Ventricle of the Heart to the other, are affected; being stuffed and obstructed with a thick Blood, which is apt to grow more viscid and solid. Wherefore it is the more dangerous and fatal, especially if it attacks old Persons, and Bleeding is not timely administred. *Boerhaave* says, the Pulse is soft, slender, and in every Sense unequal; and *Huxham*, that if the Pulse is hardly felt before Bleeding, it will afterwards beat very strongly.

In the *Cure*, great Regard must be had to the *different Stages* of this Disease, and the *different Symptoms* that attend it. *Bleeding* is indispensibly necessary at the Beginning of a severe Inflammation of the Lungs; but if after the second or third Bleeding the Patient begins to spit a *well-concocted Matter*, freely tinged with Blood, you must forbear to repeat it, otherwise the Patient will be weakened, and a fatal Suppression of the Expectoration will ensue. But if he brings up a considerable Quantity of *florid, thin, spumous Blood* by Spitting, then bleed again; quiet the Cough with *Diatodium*, and give *proper Acids* pretty freely, with soft, cooling Incrassants. If a *thin, gleety, dark-coloured Matter* is expectorated, it is generally a Mark of greater Malignity, and that the Blood is in a putrifying, dissolving State, and will not bear a large Loss of Blood.

Generally the more violent the *Rigor* or *Horror* is at the Attack, the more violent the succeeding Fever will be, which will in some Measure guide us in drawing of Blood. If the Symptoms are not relieved by the first Bleeding, after eight, ten, or twelve Hours, let it be repeated; or sooner, if they become aggravated. If the Fever, Anxiety, Oppression, and Difficulty of Breathing increase, bleed again; especially if it appears very thick and dense, or covered over with a thick yellowish Coat or Buff. However, it does not appear sometimes till the second or third Bleeding, though the Symptoms indicate a very high Inflammation. This often happens from the Blood not spouting out in
a full

a full Stream. This *Appearance of the Blood*, with a *firm strong Pulse*, will warrant the taking away more, till the Breathing becomes free and easy.

If the *Craffamentum* is of a very loose Texture, and not covered with a Buff Coat, and the Pulse on Bleeding sinks, flutters, or grows more weak and small, it is Time to desist. A blueish Film on the Blood, with a Kind of a soft, greenish Jelly underneath, while the *Cruor* itself is livid, loose, and soft, with a turbid, reddish, or green Serum, is a Sign of a very lax *Craffis* of the Blood and great Acrimony, which will not bear great Quantities to be drawn off. If the Blood is very florid, thin, and loose, with little or no Serum, after standing for some Time, it generally argues a considerable Advance to a putrid and very acrid State.

A strong, throbbing, thick Pulse, always indicates farther Bleeding, at least till the Patient breathes more easily, or a free Expectoration of laudable Matter is obtained. It often happens that the Pulse at the very Beginning seems obscure and oppressed, irregular, sluggish, and sometimes intermitting, with Weakness and Oppression. But this does not arise from the Defect, but from the too great Quantity of Blood; for the Blood Vessels being over-loaded and distended, cannot act with sufficient Vigour. This is succeeded with a dreadful Train of Symptoms, and even Death itself, if not prevented with sufficient Bleeding.

In some *very violent Peripneumonies*, an immediate and excessive Weakness comes on, with an inexpressible Anxiety and Oppression of the Breast; a very small, weak, trembling Pulse, Coldness of the Extremities, with clammy, coldish, partial Sweats; the Eyes staring, fixed, and inflamed; the Face bloated, and almost livid. This has soon been followed with a Stupor, *Delirium*, and sometimes with a compleat *Paraplegia*:

Some Kinds of Peripneumonies will not bear large Bleeding, especially the *Epidemic* or *Malignant*. The Pulse and Strength of these Patients have sunk to a surprizing Degree, and the Disease has turned into a sort of a nervous Fever, with great Tremors, *Subfultus Tendinum*, profuse Sweats, or an atrabilious *Diarrhoea*, with a black Tongue, *Coma* or *Delirium*; though at the Beginning the Pulse seemed to be full and throbbing, and the Pain, Cough, and Oppression so very urgent as to indicate Bleeding pretty strongly. In these Cases the Blood was seldom buffy to any considerable degree, but commonly very florid, of a very loose and soft Consistence, or very dark coloured, and coated with a thin and blueish or greenish Film, under which was a soft, greenish Jelly; and a dark, livid *Cruor* at the Bottom.

Sometimes the Coat was much thicker and more tough, but of a pale red Colour, resembling the *Cornelian Stone*, or a dilute Gelly of Red Currants. When the Blood is thus dissolved, abstain from farther Bleeding, especially if the Pulse or Patient becomes more languid after it, though the Oppression, Load, or even Pain, may seem to require it.

When the *fizy Coat on the Blood* is excessively tough, and extremely yellow, or of a pale red Colour, it threatens Danger; for the inflammatory Lensor will scarcely mix with any Diluents. Sometimes, after repeated Bleeding, the *Craffamentum* has scarce been a sixth Part of the Volume of the Blood, and yet as solid as a Piece of Flesh. This is generally mortal.

When the peripneumonic Symptoms continue for four or five Days, or more, we may justly fear an Abscess or a Mortification, and little Advantage is to be expected from farther bleeding. But if the Pain returns with Violence, after having ceased a considerable Time, it is a Sign that a new Inflammation is forming, which indicates bleeding as much as the primary, but not in the same Degree. The Strength of the Patient and Pulse, the Violence of the Pain and Difficulty of Respiration, are, in a great Measure, to determine the Quantity. When the Pulse and Strength seem to require bleeding, Cupping on the Shoulders will relieve the Breast and Head. Likewise the Use of *Blisters*, *Issues*, and *Setons*, are very serviceable in Inflammations of the Lungs. HUXHAM.

Laying a Blister on the Part affected is the proper Cure of a Pleurisy; but a *Peripneumony* is naturally more dangerous; and the more so, as the *Epispastic* cannot operate so directly on the Lungs as the *Pleura*. But even in this Case, Blistering is most to be relied on after bleeding. You may first blister the Back, and afterwards one or both Sides. Epispastics tend to relieve the Breast, not only when applied to the Chest, but also to the Extremities; and promote Expectoration. Whereas Bleeding must be cautiously, if at all, used after the Spitting appears. PRINGLE.

The *Fever* and the *Inflammation* require a *cool, diluting Regimen*, and nitrous and relaxing Medicines; together with a moderately cool, free Air, and Quiet both of Body and Mind. A close Room is very inconvenient; if it cannot be avoided, it should be prudently aired. There is nothing more proper than thin Whey, a Barley Ptisan with Liquorice, Figs, &c. the *Infusion of pectoral Herbs*, such as Ground-Ivy, Maiden-Hair, Colt's-Foot, Hyssop, &c. These should be gently acidulated with Juice of *Seville Orange* or Lemon. Honey will render them more detergent. Any or all these Things may be drank
warm,

warm, in Turns, by frequent small Draughts, sipping them, as it were, perpetually. These relaxing, emollient Drinks, and Vapours arising from them, are in a more essential Manner necessary, when the Expectoration is very difficult and tough. When it is suddenly suppressed, and the Difficulty of Breathing greatly augmented, an Emetic of *Oxymel of Squills* will be proper, if the Violence of the Fever is abated: But very little should be drank after it to promote Vomiting.

When soft, demulcent, lubricating Medicines are indicated, give a *Linctus* made with *Sperma Ceti*, *Ol. Amygdal. dulc.* or cold drawn *Linseed Oil*, with *Syrup. Althææ*, *Papav. errat.* *Diacodium*, or the like. When Oils disagree, a Mucilage of Quince Seeds, or Linseed, with Rob of Elder Berries or Black Currants, or their Syrup, or that of Poppies, is very useful and grateful. *Nitre* may be agreeably given with either of these; and perhaps *Camphire* would not be so nauseous. When any of these Medicines bring on any considerable Purgings, the Expectoration will be suppressed, and the Patient's Life in Danger.

When *much sincere, florid, or frothy Blood is spit up*, take away as much Blood immediately as the Patient's Strength will bear. If the *Hæmoptoï* continues, bleeding in the *Saphæna* will be found of the utmost Service. Then direct cooling Emulsions, nitrous, demulcent, and mucilaginous Medicines. Vegetable and even Mineral Acids, if the Spitting of Blood is very considerable. The Drink may be a Decoction of Red Poppies, Colt's-Foot, and Figs, acidulated with Elixir of Vitriol. The Cough may be appeased with *Diacodium*, or a soft *Linctus*. But strong Astringents and large Doses of Opiates are bad.

In a CATARRHAL PERIPNEUMONY, the Matter expectorated is extremely thin and crude, and the Defluxion so very acrid as to excoriate the Wind-pipe, causing an incessant and very violent Cough. Here, a great Loss of Blood is not necessary; but some should be drawn in the Beginning, to abate the inflammatory Disposition. *Blisters* should be applied early, and Purgatives are proper to carry off the serous *Colluvies*. A demulcent, pectoral *Ptisan* is proper to temperate the Acrimony of the Humours. It should be taken warm with mild Diaphoretics. *Coffee* is a useful Drink. Direct *Diacodium*, or *Elixir Paregoricum*, to moderate the Cough, in small Doses often repeated. *Sperma Ceti*, *Olibanum*, *Myrrh*, and *Camphire*, tend to incrassate the thin, catarrhal Humour, and abate the Irritation.

In the PUTRID PERIPNEUMONY the Expectoration is livid, gleety, and sanious, frequently resembling the Lees of Red Wine; sometimes more black, and sometimes very fetid. This is often

the Case of the highly scorbutic; particularly Sailors, after a long Voyage. Blood taken from these, appears to be in a dissolving putrescent State. The *Crassamentum* is loose and tender, the *Serum* turbid and reddish; the *Tongue* is black; the *Teeth* furred with a dark thick *Sordes*; the *Breath* offensive; the *Urine* high-coloured or blackish. Black Spots, or a Dysentery, frequently appear on the fifth, sixth, or seventh Day. The Pulse and Strength sink after Bleeding: Sometimes a vast Anxiety, Fainting, a cold Sweat, a thready intermitting Pulse soon after. This has sometimes happened in Pleuro-Peripneumonies, where the Pain at the Side was violent, the Load at the Breast great, and the Cough considerable.

This will never bear a second Bleeding to Advantage, seldom the first, unless there is a considerable Degree of Firmness and Tension in the Pulse. When there is Reason to be diffident, order Scarifications and Cupping.

In this Disease give a Decoction of Flgs, Colt's-foot, and Red Poppies, well acidulated first with Juice of Seville Orange, or Lemon, and afterwards with Gas Sulphuris, or Elixir Vitrioli. Nitre, Olibanum, Myrrh, Flowers of Sulphur, and Bole may be administered, with Conserv. Lujula, Rob of Elder, Currants, Mucilage of Quince Seeds, and Syrup. de Rubeo Ideo: Camphorated Vinegar, with Syrup of Elder or Raspberries, is an excellent Medicine. A Spoonful or two of these latter should be given ever and anon. Sound Cyder and Wine and Water, with Seville Orange or Lemon Juice, drank warm, promote Expectoration when deficient. Tincture of Roses, with Red Poppy Flowers, has moderated an inordinate Defluxion of thin, bloody Ichor. However, Oxymel of Squills, and strong Cinnamon Water, are frequently necessary to pump up the Ichor, when a great Rattling in the Throat, and Difficulty of Breathing, indicate a vast Quantity of it in the Lungs. And yet the Violence of the Cough may be often appeased by Elixir Asthmaticum or Diacodium. The Patient is to be supported with Sago, Panada, Hartshorn Jelly, roasted Apples, Cream of Barley, or thick Gruel, with a little Wine and Juice of Lemons, giving a little at a Time, and often. Strawberries, Raspberries, Currants, Cherries, may sometimes be indulged.

At the Close, the Whole depends on a well-regulated Diet. A Toast, with diluted Red Port Wine, mulled with Seville Orange-Peel, Mace or Cinnamon, and well acidulated, may be very useful. Blisters are seldom beneficial in this Case, but often mischievous.

A very

A very thin yellow Spitting, either shows that nothing but the thinnest Part of the Blood is strained through the Arteries of the Lungs; or that the whole Mass of Blood begins to dissolve, its bilious Principles highly exalted, and that all tends to a general Putrefaction. It is commonly attended with a violent Cough, and Expectoration is performed with exceeding great Difficulty. Many Times it is succeeded by an *Hæmoptoe* from the Rupture of the Vessels; particularly when the Tongue appears very red, dry, smooth, and shining, with a kind of livid Bladders at the Top.

The concocted Matter of inflammatory Obstructions of the Lungs is partly spit off, and partly carried off by thick, turbid Urine in large Quantities, depositing much reddish or yellow-coloured Sediment; and sometimes partly by bilious Stools. Nothing promotes this Urine, and these Stools, more effectually than laxative Clysters. Sometimes the morbid Matter is critically translated to the Legs, to the great Relief of the Breast; and therefore, in severe Pulmonic Disorders, a Derivation of the Humours to the Legs may be attempted by tepid Bathing and Blisters. The Discharge from the ulcerated Blisters must not be suddenly suppressed; for then the Difficulty of Breathing and Cough will return; or a very great Purging, or profuse Sweats will succeed. HUXHAM.

If the Patient is not relieved, or dies in eight Days, the Inflammation will end in a Suppuration, and an Abscess of the Lungs, and sometimes in some other Part of the Body: The Symptoms of which are an obstinate dry Cough, which Motion and taking of Food will increase. The easiest Posture in lying will be on the affected Side; there will be a slow Fever, with Chillness and Shivering at uncertain Periods; Exacerbations after Motion, or a Repast; Thirst, Night Sweats, a frothy Urine, Paleness, Leanness, Weakness. In this Case, Bleeding must be forborne; the Diet must be mild, soft, in-crassating, and more plentiful. Tepid Vapours should be taken into the Lungs, of Decoctions of proper Ingredients.

When by the Symptoms and Time the Imposthume may be judged to be ripe, the Vapour of Vinegar itself, and any thing which creates a Cough, as *Oxymel*, Exercise and Concussion, are proper. The sooner it is broke, the less Danger to the Lungs.

In this State, which is not absolutely desperate, the Aliment ought to be Milk; and the Drink, Milk and Barley-water, with gentle Anodynes, that the Patient may have some Rest. If the Inflammation ends in a Gangrene, the Case is desperate; if in a Schirrus, incurable.

Of the BASTARD PERIPNEUMONY.

AT the Beginning of the *Fever* the Patient is hot and cold by Turns, is *giddy* upon the least Motion, and complains of a rending Pain of the Head whenever he coughs; he *vomits* up every thing that he drinks; the *Urine* is turbid and intensely red; the Cheeks and Eyes look red and inflamed; his *Breathing* is thick and short; the whole *Thorax* is full of Pain, and the Strainess of his Lungs, as often as he coughs, is perceived by the By-standers: Whence the free Course of the Blood is prevented, which creates a Stoppage of the Circulation, and *takes away all the Symptoms of a Fever*, especially in those of a full Habit of Body; this may also happen from the Blood's being overloaded with a great Quantity of pituitous Matter, which oppresses it so as to prevent a *febrile Ebullition*.

It sometimes appears at the Beginning of the *Winter*, but oftener between that and the *Spring*. The Blood is like that of *pleuritic Persons*. SYDENH.

This *Disease* sometimes steals upon the Patient unawares, with a slight Weariness, a Weakness, a general Prostration of the Faculties of the Mind, thick and short Breathing, beginning with an Oppression of the Breast. The Commotions it excites are so small, that the Heat and Fever are scarce sufficient to make the Patient sensible of his Danger. Afterward, slight Shiverings, which come on by Fits, and the Attacks of a gentle Fever, appear: Whence the Difficulty of Breathing, and Weakness suddenly increasing, bring on Death; of which there were scarce any Signs either in the Urine or Pulse, BOERH.

When perpetual, laborious Wheezing, great Anxiety, and constant Oppression of the *Præcordia*, comatous Symptoms, cold Extremities, and dark, bad coloured Nails and Visage come on, the Patient is in immediate Danger. HUXHAM.

Mittatur Sanguis ex Brachio dextro ad ℥x. SYD. *Ex largo Vulnerere.* BOERH. On the following Day give *Pil. ex Colocynth. cum Aloe* ℥ij. at Four in the Morning. SYDEN.

When comatous Symptoms and a very difficult Breathing remain after Bleeding, cup and scarify the Neck and Shoulders. This has frequently had a surprizing Effect. When the Case is very threatening, blister the Scarifications. HUXHAM.

After Bleeding, let the Patient have the following *Clyster*, which must be repeated daily till the Lungs are relieved:

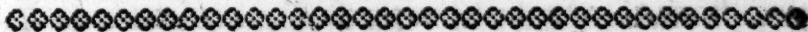
I. R. *Mel.* ℥ij. *Nitr.* 3j. *Vitel. Ovor.* No. j. *Aq. Hordeat.* ℥viiij. *M. F. Enema.* Let

Let the Patient's Diet be very slender, such as weak Broths, sharpened a little with *Orange* or *Lemon* Juice, and he may drink a weak Mixture of Honey and Water; the Steams of warm Water may be taken in at the Mouth, and the following Decoction may be taken frequently:

2. R. Rad. Fœnicul. ℥ij. Rad. Gram. ℥iv. Fol. Agrimon. Parietar. an. Manip. i℥s. Sem. contus. Papav. alb. ℥j. Glycyrrhiz. ℥i℥s. cum. Aq. decoct. Spatio quadrant. Horæ ℥v. exhib. Capiat. ℥ij. omni Bihorio.

Likewise let the Legs and Feet be bathed, and large *Blisters* applied. BOERH. Sydenham advises a Repetition of the *Bleeding* and *Purging* alternately, every other Day, or at greater Intervals, as the Strength and Symptoms will permit or require. But he has generally found twice Bleeding sufficient. The Days on which *Purging* is omitted, he directs the *pectoral Decoction* and *Linctus*, as in the *Pleurisy*.

Huxham is of Opinion, that though *Bleeding* and *Purging* may be necessary at the very Beginning, it is very seldom proper to repeat the former, and the latter must be managed with some Caution; for, unless the Patient is properly supported during the Operation, he is apt to fall into *Faintness*, *cold Sweats*, &c. If the Patient spits largely a concocted Matter, which is sometimes the Case, neither the one nor the other is proper, but *laxative Clysters*, and *mild Eccoprotics*, at least during the Expectoration. Likewise the Patient should take frequently thin Mustard-whey, *Hydromel*, or *pectoral Decoctions*, with a small Quantity of soft White-wine in them. The *saline Draught* promotes Expectoration greatly, made with Salt, or Spirit of Hartshorn, and Juice of Lemons, or distilled Vinegar. It likewise relieves Difficulty of Breathing, and commonly operates by Sweat or Urine. *Blisters* should never be neglected; lay a large one to the Neck at the Beginning; and if there be Occasion, to the Legs and Thighs.



Of the INFLAMMATION of the LIVER.

WHEN the *Liver* is inflamed, it compresses the *Stomach*, *Diaphragm*, and the neighbouring *Viscera* of the *Abdomen*; it stops the Circulation of the Fluids, hinders the Generation and Excretion of the Gall, and all Digestion: It produces a great many *bad Symptoms*, as the *Jaundice*, with all the Diseases depending

pending thereon; for the *Liver* receives the reflux Blood from almost all the Parts of the *Abdomen*, and is the chief Instrument of almost all the Digestions that are made there. ARBUTH.

The Substance of the Liver may be expanded to a very considerable Bulk, without any acute Pain; whence the Substance of it is very rarely subject to an Inflammation. But there is a spurious Sort, which is seated in the convex Part, chiefly among the Membranes and Ligaments, which adhere to the spurious Ribs and Diaphragm. HOFFMAN.

A Fever, an Inflammation and pungent Pain on the Region of the Liver and Diaphragm, a Tension of the *Hypochondria*, *Yellowness* of the Skin and Eyes, and a *Saffron-coloured Urine*, are Signs of an inflammatory Disposition of the Liver. ARBUTH.

It begins with Cold and Shivering, sometimes with Vomiting and a Fever, Watching, difficult Breathing, Inquietude, and Costiveness. This is a Kind of rheumatic or erysipelatous Fever, proceeding from a sharp, viscid Serum, lancinating the nervous Fibrillæ. It is sometimes accompanied with a Bastard Pleurisy, to which it is a-kin.

It is not very dangerous, and rarely kills, unless the Viscera are unsound.

Narcotics and Sudorifics are to be shunned.

This Disease terminates as other Inflammations, being cured by Resolution, Concoction, and Excretion of the morbid Matter; or else in an Abscess, Schirrus, or Gangrene.

During the first State a warm Regimen and Saffron, which some reckon a Specific, are improper.

Cooling, resolving Liquors, taken inwardly, as Whey, with Sorrel boiled in it. Outward Fomentations and frequent Injections of Clysters, Bathing, and Frictions, relax, and render the Matter fluid. Honey, with a little Rhenish Wine, or Vinegar; the Juices and Jellies of some ripe Garden-Fruits; and those of some lactescent Plants, as Endive, Dandelion, and Lettuce, are resolvent.

Fat, oily Epithems, and Plaisters, are to be shunned. Camphire in croceated Spirit of Wine is only to be used in the Beginning, or when the Fever is moderate, and Nature sluggish. Bleeding at first is necessary on the affected Side, in the Hand or Foot.

Violent Purging hurts; gently relaxing the Belly relieves: Diluents, with nitrous Salts, are beneficial, or Tamarinds boiled in warm Water or Whey.

A Clyster pure; oleous is beneficial, with a Bladder full of an emollient Decoction. Inwardly diluting and resolvent Mixtures.

If

If it is attended with the Jaundice, then apply Epithems of *Cardus Benedictus*, *Scordium*, Wormwood, Elder-flowers, Chamomile, Seeds of Lovage and Cummin boiled in Wine, and often applied. HOFFMAN.

Pringle says, the best Remedy, after plentiful Bleeding, is to lay a large Blister over the Part affected.

Bloody Stools, not in an extreme Degree, or streaked with Blood, ought not to be stopped, because they help to resolve the Distemper: Bleeding at the Nose often does the same.

The feverish Matter is frequently carried off by Urine; and therefore Diuretics, not highly stimulating, are proper.

Sweating ought not to be promoted by hot Cordials, but encouraged by warm diluting Liquors.

The Case is deplorable, when the Inflammation terminates in a Suppuration, unless the Abscess points outwardly, so as it may be opened. For if the Pus is evacuated into the Abdomen, it produces Putrefaction, or an incurable hepatic Dysentery, or Bloody-Flux. ARBUTHNOT.

If the Inflammation be recent, extremely violent, and without any Signs or Hopes of Resolution, Concoction, and Excretion, the Case must be treated with the same Cautions and Remedies; and the same Method of Cure must be pursued, as is directed in the Pleurisy, and other similar inflammatory Disorders; and almost the same Remedies, such only excepted as the Situation of the Part affected cannot admit of; except likewise, in the Case before us, that all antiphlogistic Fluids, which promote the Excretions by Stool, when either drank, or injected by way of Clyster, are particularly serviceable. BOERHAAVE.

Of a PARAPHRENITIS.

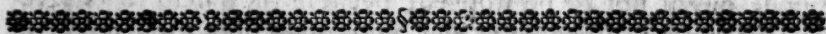
THIS Disease is an Inflammation of the *Diaphragm*, and Parts adjacent. A *Paraphrenitis* is attended with a very acute continual Fever, and an intolerable inflammatory Pain of the Part affected; which is extremely augmented by Inspiration, Coughing, Sneezing, Repletion of the Stomach, a Nausea, Vomiting, Compression of the Abdomen in going to Stool or making Water. Hence, the Breathing is thick, short, and suffocating, and performed only by the Motion of the Thorax. There is also a constant Delirium; a drawing of the Hypochondria inwards and upwards, an involuntary Laughter, Convulsions, and Madness.

This

252 *Of the Inflammation of the Intestines.*

This Disease terminates, as in a *Pleurisy*, but is attended with more violent Symptoms, and is much more fatal. If the Part affected suppurates, the Matter will fall into the *Abdomen*, and produce a *purulent Ascites*.

The Cure must likewise be attempted in the same Manner as in a *Pleurisy*. *Emollient Clysters* are often beneficial. BOERH.



Of the INFLAMMATION of the INTESTINES.

THIS Disease contracts the *Intestines*, and stops up the Passage through them. There is a *vehement, fixed, burning Pain*, which is irritated by Things taken inwardly. When the Inflammation is in the upper Part of the *Intestines*, the *Stomach* will be greatly distended by Wind. When the Pain is exasperated, it produces *Convulsions* of the *Diaphragm* and *abdominal Muscles*, Vomiting, painful Inflation, with Rumbings, and sharp griping Pains, which may bring on the *Iliac Passion*, or Twisting of the Guts. BOERH.

When there is a *burning Pain* in the *Abdomen*, with a *preternatural Heat* of the whole Body, as also a *quick Pulse*, Loss of Strength, Anxiety, and Inquietude, the Seat of the Disease may justly be suspected to be in the *Intestines*. If the sharp Pain is *above the Navel* and *below the Stomach*, attended with a Fever, *Nausea*, and Reaching, it is a Sign that that Part of the *Colon* is affected which lies beneath the *Stomach*, and is extended from the Right to the Left Side. If the Pain lies in the *Right Hypochondrium*, under the *spurious Ribs*, it shews that Part of the *Colon* to be inflamed where it joins to the *Ilium*. When the Complaint is of the *Left Side*, under the *Loins*, where the *Psoas Muscle* is placed, it is a Sign the *Colon*, and that Part of the *Mesentery* joined thereto, is the Seat of the Disease; especially when it adheres to the *Peritonæum*. But when the Pain is in the Middle of the *Abdomen*, about the *Navel*, it shews the *small Guts* are certainly affected. In all these Cases the Pain is supposed to be attended with a Fever.

When there is a *Fever*, and a *burning Pain* in the lower Part of the *Belly*, attended with a *Swelling*, which ends in a copious, putrid or purulent Flux, with a great Disorder of the Bowels, it shews the Seat of the Disease to be in the *Mesentery*. HOFFMAN.

This Disease should carefully be distinguished from a *Colic*, proceeding from a cold Cause, because what is good for the latter,

latter, is Poison in the former. It must have a speedy Remedy, or it will soon end in the *Iliac Passion*, or a *Mortification*.

Besides *copious Bleeding*, there is hardly any other Method of Cure than fomenting and relaxing the Bowels with *emollient Liquids*, taken warm both by the Mouth and in *Clysters*, and this every Hour. Yet *Acids*, in very desperate Cases, have been known to give Relief; such as the *Juice of Lemons* taken by the Mouth, and *Vinegar* and *warm Water* given in *Clysters*: When the Vomiting is excessive and continual, Opiates should be given to quiet the Convulsions. ARBUTHNOT.

Pringle affirms in this Case, that the best Method of Cure is to lay Blisters over the Part affected; and it has been practised with Success, without any bad Consequences, how soon soever they were applied after Bleeding. In particular they are useful in the *Ileus*, and seem to answer equally well in the fixed Pains of the Bowels, whether from an inflammatory or flatulent Cause.

Warm Fomentations, or young, vigorous, and sound Animals, applied to the Body, are extremely beneficial. ARBUTH. The Patient should only be nourished with Broths, in which gently detergent Roots have been boiled. BOERH.

It is a fatal Error of some Practitioners, when they find the Body *obstinately costive*, they give one Purge after another, which not only exasperates the Disease, but renders it mortal. Even the Clysters should not be made of very stimulating Ingredients, but of *Milk alone* with a little *Nitre*; or Rain-water, with Syrup of Violets, or of Marsh-Mallows, or Roses solutive; or the following:

- I. R. *Aq. Pluvial.* ℥xij. *Syrup. de Alth.* ℥iss. *Nitr. pur.* ʒj.
M. F. *Enema.* *Inficiatur singulis tribus Horis; et vesica emolliente decocto plena Abdomini admoveatur.*

After Bleeding and Clysters, if the Pain still continues violent, there will be no Manner of Danger in giving Opiates, by which Means the excruciating Pain will be alleviated, the Spasms appeased, and a breathing Sweat will follow. When this is done, and the Fever is abated, there will be no Occasion to continue the *diluting, relaxing, and moistening Medicines*, but rather the *nervous and corroborating*; such as the Preparations of Amber, [especially the *Salt* and *Tincture*, the former of which may given in a Bolus from vi to xvi Grains, and the latter from xx to lxxx Drops in any convenient Vehicle.]

HOFF.

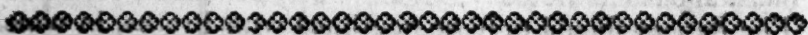
If the Patient survives three Days, and the Acuteness of the Pain abates, with a *Chillness* or *Shivering* throughout the Body,
it

it is a Sign of a *Suppuration*; then within *fourteen Days* the *Imposthume* will break; and if it falls into the Cavity of the *Abdomen*, it will corrupt the whole Mass of Fluids, purify the *Viscera*, and turn to an *Ascites*; whence the Patient will die of a *Consumption*.

In this Case, *Whey* and *Chalybeate Waters* are likely to prove most beneficial.

If the *Fever* continues, with clammy Sweats, Paleness, an ichorous *Diarrhœa*, fetid, black, or like the Washings of Flesh; a small intermitting Pulse, and at last a total Cessation of Pain; they are Signs of a *Gangrene*, and an approaching Death.

If the *Inflammation* continues a long while, and does not come to any great Height, nor is resolved, nor suppurates; then there will be a constant *Stupor*, Weight, and a dull, gnawing Pain in the Part affected; which shews that a *Schirrus* is formed. *Broths* and *Whey*, and *alimentary Clysters*, may in this Case support the Patient's Life for a long Time. BOERH. ARBUTH.



Of the NEPHRITIS, or INFLAMMATION of the KIDNEYS.

THE Symptoms of a *Nephritis* are, a great inflammatory, pungent, burning Pain, in the Place where the Kidneys are situated, attended with a Fever; the Urine is made often, but small in Quantity, and very red or flame-coloured, yet, in the highest Degree of the Disease, watry. There is a Numbness of the Thigh, and a Pain in the Groin and the Testicle, of the same Side; a Pain in the *Ilium*, bilious Vomiting, and continual Eructations. BOERH.

When the Inflammation is deep, the Fever violent, the burning Pain in the Loins lasting, the Difficulty of making Water great, the Body very costive, the Anxiety and Straitness of the *Præcordia* exquisite, the Urine crude and white; likewise if the Pain continues till the *fourteenth Day*, the Kidney will suppurate; which is known from the abating of the Pain, and from the thick, purulent Sediment of the Urine. This will sometimes last several Years, till there is nothing left of the Kidney but a Bag: It is attended with a *Hætic Fever*, and the Patient, before he dies, is almost reduced to a Skeleton. If the Bag happens to burst, it brings on a Retention of Urine, and intolerable Pains, which end in Death. HOFF.

If it continues beyond the *seventh Day*, an *Abscess* is to be feared, which is known to be forming by a Remission of the Pain,

Pain, succeeded by a Puffation in the Part, and Chillness and Shivering often returning; there will, likewise, be a *Weight* and Numbness in the Part affected.

When the Disease is favourable, it is cured by *Resolution*, of a *copious, red, and thick Urine*, discharged at *one Time*, or by a large Flux of Blood from the *Hæmorrhoidal Veins*, in the Beginning of the Disease. BOERH.

Coffee coloured Urine is not a dangerous Symptom. ARBUTH. [But this seldom appears but in a *Fit of the Gravel*, which it likewise sometimes ushers in. This will be treated of in a Section by itself.]

It is cured by *plentiful Bleeding*, *Revulsion* and *Dilution*; by soft, emollient, antiphlogistic Decoctions: Thus,

1. R. Rad. Gram. ℥iv. Sem. contus. Melon. ℥iss. Glycirrhz. ℥j. cum. Aq. decoct. spatio semihoræ ℔iij. exhibe; capiat ℥ij. omni quarta Parte Horæ.

Clysters may likewise be made of the same Ingredients, as also Fomentations and Baths. BOERH.

When a burning and fixed Pain in the Loins continues for some Time, it is a Sign that the venal Vessels are stuffed and obstructed with a thick Blood, which requires immediate Bleeding in the Foot; or if there is a Disposition to an hæmorrhoidal Flux, apply Leeches to the *Anus*. Afterwards give such Things as temperate the Heat of the Blood and promote a free Circulation, with a *Diaphoresis*. For which Purpose, Emulsions, Demulcents, Diluents, Antispasmodics, diaphoretic Powders with Cinnabar and Nitre, are preferable to every thing else.

Emollient Clysters, without any *saline* or *purging Stimulus*, are the *principal Help* in this Disease. They may be made of Milk, Whey, or soft Water, in which Elder and Chamomile Flowers have been boiled, to which add an Ounce or two of Syrup of Marshmallows, and a Dram of Nitre. The Body should be kept open with Oil of Sweet Almonds, and Wind in the Bowels should be discussed; for which Purpose *Cumin Seeds*, made into *Comfits*, are *instar omnium*. No *greasy Applications* should be used outwardly, nor *Spirit of Wine* and *Camphire*; but a Bladder half full of the Decoction of *emollient Flowers* in Milk, with a little *Saffron*. HOFF.

When there are *Convulsions*, or *excessive Pain*, Opiates are proper. If the *Vomiting*, a Symptom of this Disease, is too frequent, warm Water, sweetened with Honey, is beneficial.

The Patient should avoid all acrimonious Aliment; he should neither lie too hot, nor on his Back.

By

By this Method, likewise, a *Nephritis*, arising from a *Stone* in the *Kidneys* or *Ureters*, may be cured.

When an *Abscess* is formed, the Medicines must be powerfully *maturating* and *emollient*: When the Urine appears purulent, they must be *Diuretics* of medicated Waters; Whey, and the like; together with *Balsamics*. BOERH.

Milk or *Whey* should be medicated with *Flor. Hyperici*, *Summitat. Millefolii*, *Fol. Veronicae*, & *Hederae terrestris*. Emulsions are likewise useful, of the four cold Seeds, and Sweet Almonds. Some attribute a great Virtue to *Cherry-tree Gum* dissolved in Whey or Water, and taken often. Also Syrup of Marshmallows is very useful: Add to these the Decoction of *Veronica* sweetened with Honey, mixed with Powder of Nutmegs. When an *Ulcer of the Kidney* proceeds from a *Stone*, it will be necessary to abstain from all acrid, hot, and spirituous Things; from Diuretics, Lithontriptics; for they will either bring on a fresh Inflammation, or bloody Urine. Good Honey, mixed with Powder of Nutmeg, and taken in a Decoction of *Veronica*, or Syrup of Marshmallows, will be of great Use. In inveterate Ulcers of the Kidneys, a Mixture of Rob of Juniper-Berries and Malmsey Wine is excellent. A few Spoonfuls must be taken of it after a Meal. HOFFMAN.

Buttermilk, not very sour, has been reckoned a great Secret in Ulcers of the Kidneys; and *Chalybeate Waters* have been beneficial to some. *Spruce Beer* is a good Balsamic in this Case: I should advise soft Malt Liquors rather than Wine. ARBUTH.

If the Disease ends in a *Schirrus*, there will be a Palsy, or a Lameness of the adjacent Thigh; an *incurable Evil*; whence will proceed a *renal Tabes*.

When there is a sudden Remission of the Pain, a cold Sweat, a weak intermitting Pulse, Hiccup, a Stoppage of Urine, or when it is livid, black, full of Hairs, fetid, abounding with brown or black Caruncles, a sudden Loss of Strength, there is a *mortal Gangrene*. BOERH.

Of the INFLAMMATION of the BLADDER.

THE Pathognomonic Signs of this Disease are, an *acute, burning, pressing Pain* in the Region of the *Pubes*, attended with a Fever, a *continual Tenesmus*, or Desire of going to Stool, and a *perpetual Striving* to make Water.

Other

Other Symptoms are, a Rumbling of the Bowels, griping Pains, great Anxiety of the *Præcordia*, difficult Breathing, Want of Appetite, Vomiting, Coldness of the extreme Parts, a hard, quick, unequal, contracted Pulse, Inquietude, and sometimes Convulsions.

There is another Kind which is more superficial, and is either *rheumatic* or *erysipelatous*, in which the Fever is more easily and speedily cured by promoting a *Diaphoresis*: And Persons in *Years*, or who are affected with the *Scurvy*, *Gout*, *Rheumatism*, or violent *Head-Achs*, are most subject to it; especially if they catch Cold, by being exposed to the Rigour of a cold North Wind.

The former arises most commonly from the Stoppage of the *Menses*, bleeding Piles, or other usual sanguinary Evacuations, and not seldom from a violent *Gonorrhœa* unskilfully suppressed by Astringents, or when treated by Medicines of too sharp and hot a Nature.

This Disease is mortal, if it terminates in an Ulcer or Mortification; the latter is immediate Death.

The Cure must be attempted with *Bleeding in the Foot*, if a Suppression of the *Menses* or hæmorrhoidal Flux be the Cause.

If it proceeds from the *Scurvy*, &c. Recourse must be had to gentle Diaphoretics, Diluents, and Remedies which obtund the Acrimony of the Humours; such as *Decoctions* of the Roots of *Scorzoneræ*, *China*, Skirrets and Fennel. Also Infusions in the Manner of Tea of the Tops of *Yarrow*, Flowers of *Mallows*, Winter-Cherries, [*Baccæ Alkekengi*,] and Seed of *Daucus*, made with Milk, and sweetened with *Syrup. de Althæa*. To these may be added Emulsions of the four Cold Seeds. If the Patient's Body is costive, *Manna* will be proper, with *Nitrum stibiatum*, to which *Rhubarb* may be joined as Occasion requires.

If the Disease is violent, *Diaphoretic Powders* will be necessary, with Nitre in a larger Proportion than ordinary, as also five Grains of Saffron and two of Camphire, with the *Emulsions* aforesaid. [Or thus,

1. R. Calc. Antimon. illotæ ʒss. Croci, gr. v. Camphor. gr. ij.
M. F. Pulvis, statim sumendus. Or,
2. R. Nitri pur. ʒj. Antimon. Diaphor. gr. xv. Croci, gr. iv.
Camphor. gr. ij. M. F. Pulvis.]

Externally, *Antispasmodics* and gentle Discutients will be proper: For this Purpose it is my Method to apply Bladders filled with a Decoction of the *emollient Flowers*, or instead of that, the following Plaister:

3. R. Emplast. attrahent. ℥j. Sperm. Cet. ℥iij. Crac. Camph. an. ʒj. M. F. Emplastrum. Or,
4. R. Ol. Amygd. dulc. ℥j. Ol. Hyosciam. ℥iij. Camphor. ʒj. M. Illine erebrius Regionem Pubis & Perinæi. Or,
5. R. Ol. Amygd. dulc. ℥iij. Spir. Sal. Ammoniac. ʒj. Camphor. ʒj. Unguent. ex Althæa ʒj. M. F. Linimentum, quo inunge Regionem Pubis & Perinæi.

If the *Tenesmus* and Difficulty of Urine arise from *Spasms*, there is nothing better than the Vapours of a Decoction in Milk of the Flowers of *Melilot*, *Elder*, *Chamomile*, and *Mallows*, and the Tops of *Yarrow*. This Decoction may be put into a Close-stool, and the Patient sit over it.

The *Selters* Mineral Waters with Milk, are excellent for cleansing the Bladder of mucous and sanious Matter. Or the Waters may be drank at Meals in the Spring and Fall, mixed with a fourth Part of *Moselle* or *Mountain Wine*, for a Month together. HOFFMAN.

Tulpius informs us, that a desperate Ulcer of the Bladder was cured by the constant Use of *Spaw-water*.

I would lay this down as an Axiom for all Practitioners to observe, that in all Inflammations of the *nervous* and *membranous* Parts, as in the Phrensy, Pleurisy, in the Inflammation of the Liver, Stomach, Intestines, and Bladder, nothing is more pernicious, or brings on Death more speedily, than *Opiates* taken inwardly. HOFFMAN.

Of the OPTHALMIA, or INFLAMMATION of the EYES.

AN Inflammation of the *Membranes* which invest the Eye, is a very common Disease, especially of the *Adnata* or *albuginous Coat* of the Eye. HOFFMAN.

The Eyes are very much inflamed, with great Pain, Tension, Tumour, Heat, and Redness; and sometimes there is such a strong Sensation of pricking in the Eye, as if it was caused by a Needle or Thorn. The Eyes at first are full of *scalding Tears*, which are followed by a pituitous Matter, which is sometimes small in Quantity, sometimes more plentiful; a *Sordes* adheres to the greater Angle of the Eye, and when the Disease is violent, the neighbouring Parts will swell even as far as the Cheeks, with a strong Pulsation of the adjacent Arteries. The small
Blood-

Blood-Vessels are visible, which in Health are not to be seen, and all the White of the Eye becomes red. LOMMIUS.

If, besides these external Signs, there is an Appearance of Moths, Dust, Flies, &c. floating in the Air, there is an Inflammation of the *Retina*, which I call an *internal Ophthalmia*. PITCAIRN.

As in all Diseases of the Eyes, so especially in their Inflammation, the Patient must abstain from all spirituous Liquors, the Smoak of Tobacco and Sternutatories; he must likewise avoid smoaky Rooms, and the Vapours of Onions and Garlick, as also all vivid Lights and glaring Colours. The Drink may be Water alone, or a Decoction of Fennel Seeds, Hartshorn, and Barley; the Aliment must be light of Digestion. HOFFMAN.

Intemperance of all Kinds renders Persons liable to this Disease; as also a *keen North Wind*, and looking earnestly at the *Fire*, *Sun*, or *glaring Colours*: Likewise smoaky Rooms, metallic Vapours, Costiveness, and unusual Refrigerations of the extreme Parts, especially in the Time of Menstruation. Sometimes it is owing to other Diseases, as the *Small-Pox*, *Measles*, *Scurvy*, and the driving back the *Gouty Matter*.

A slight *Ophthalmia* is easily cured; a more severe one generally continues a Month, or longer, and often leaves a Spot in the *Cornea*, or depraves the Humours of the Eye. HOFFMAN.

The slighter Inflammations from Dust or the Sun, are removed by fomenting with warm Milk and Water, and anointing the Eyes with *Unguentum Tutiae* at Night: If the Eyes are weak, and but little inflamed, they may be washed with Brandy and Water.

In all Cases we are to look narrowly and often into the inflamed Eye; since the Inflammation may be either begun, or be kept up by Moats, or by Hairs of the *Cilia* falling in, or growing inwards, so as to cause constant Irritation. PRINGLE.

Take away ten Ounces of Blood, and the next Morning give the *common purging Potion*, which may be repeated twice or more, with the Interposition of two Days between each Dose, and at Night an Ounce of *Diacodium*.

On the Days in which Purging is omitted, let the Patient take four Ounces, three or four Times in a Day, of the Emulsion of the four greater Cold Seeds, and white Poppy Seeds. Externally, the following *Collyrium*:

1. R. *Aq. Plantag. Ros. Rub. & Spermat. Ranar. an. ʒj. Pulv. Tutiae ppt. ʒj. F. Collyrium.* A few Drops are to be dropped into the Eyes twice a Day, but not till after the first Purge.

If the Disease will not yield to repeated Cathartics and Bleeding, give an Ounce of *Diacodium* every Night. SYDENHAM.

The slighter Cases may be cured without Bleeding; but if any Degree of a Fever is joined, or the Inflammation is considerable, this Evacuation is never to be omitted. The more violent Inflammations are not to be cured without larger Bleedings, unless we can make a Derivation from the Part affected without draining the whole Body. For this Purpose Blisters are usefully applied behind the Ears, especially if they are to lie on for two or three Days, and if the Sores are afterwards kept running. But I have sometimes found the *Bleeding by Leeches* more efficacious than this Method. Two of them should be applied to the lower Part of the Orbit, or near the external Angle of the Eye, and the Wounds be allowed to ooze for some Hours after they are fallen off. Therefore in all great Inflammations, I have used this Method, together with Blisters and Purging, if necessary; I mean after Bleeding in the Arm or Jugular.

This Method will likewise do in *Ophthalmias* from external Injuries; but not when they proceed from a *scrophulous* or *venereal Cause*. In bad Cases, after the Inflammation has yielded a little to Evacuations, the *Coagulum Aluminosum*, spread on Lint, and applied at Bed-time, is the best external Remedy. PRINGLE.

In a *strumous Ophthalmia*, *Calomel* is the only Remedy; and in all Kinds of this Disease, the following Pills will be convenient:

2. R. Pil. ex *Colocynth. simplic.* ʒss. Merc. D. gr. viij. Ol. *Caryoph. gutt.* ij. F. Pil. vij. pro unica Dosi. Or,
3. R. *Extract. Cathar. Resin. Jalap. Merc. Dul. an.* ʒss. Ol. *Cinnam. gutt.* j. Syr. de *Rhamn. q. s.* ut f. Pil. exiguae pro Dosi.

In the mean while, *Blisters* must be applied to the Neck, and kept running for some Days, and after that, *Setons*, or *Issues* at least. It is hard to say of what vast Advantage Blisters and Setons are in this Disease; wherefore they ought to be strongly urged.

The expressed Juice of *Millepedes* may also be given [xxv are a Dose] on the Days purging is omitted, in four Ounces of Beer, or *Rhenish*, or *French White Wine*; let them stand, when mixt, all Night, and then take it with a little Sugar in the Morning, after the Mixture is strained. PITCAIRN.

But according to the later Experience of Dr. Fordyce, Fothergill, and others, a strumous Ophthalmia may be certainly and safely cured by Half a Dram of the Bark given twice a Day. Dr. Fothergill

thergill gave the Bark in the following Manner, because it occasions the least Disgust:

4. R. Pulv. Cort. Peruv. ℥j. Coque in Aq. pura ℔ij. ad ℔j. sub finem addendo Rad. Glycyrrh. incis. ℥ss. Colaturæ adde Aq. Nuc. Mosch. ℥ij. M. capiat. Coch. ij, iij, vel iv, cum Tinct. Guaiac. vol. gutt. xxx. ad lx. usque, bis terve quotidie.

He observes farther, that a small Quantity of the *Cortex Winteranus* added, gives the Medicine a grateful Warmth, and renders a Quantity of the Nutmeg-water less necessary; and a little Liquorice, a few Raisins, Gum Arabic, or the like, added to the Decoction before it is taken off the Fire, by making the Liquor viscid, enables it to suspend more of the fine Particles of the Bark to the Advantage of the Medicine.

The Length of Time in which the Bark is to be taken is uncertain, for in some the Cure is performed in less Time than others.

Hoffman, besides Blister, Setons, &c. recommends Cupping, with Scarification, in the Nape of the Neck, and behind the Ears; and in the violent Sort of this Disease, Bleeding in the Jugular; as also Sinapisms of Rocket Seeds boiled in Wine, and then put into small Bags and applied to the Nape of the Neck, or under the Arm-pits. For inward Use, he prefers to all other Remedies, an Infusion, in the Manner of Tea, of *Valerian-root*, *Liquorice*, *Elder Flowers*, and *Fennel Seeds*, drank plentifully; and before the Drinking of it to receive the Vapour or Steam into the Eyes. Externally, he advises the following safe Collyrium:

5. R. Aq. Flor. Samb. Sclopetariæ [Arquebusade Water] an. ℥j. Camph. gr. iij. Sacchar. Saturn. gr. x. M. quod cum Linteo triplicato crebrius tepide Oculis applicandum.

[Shaw uses Camphire in a larger Proportion, viz. a Drachm dissolved in an Ounce of French Brandy, and says it cured a Person of a Weakness and Diminution of Sight of both Eyes, after a Month's Indisposition, occasioned by the grazing of a Hat in one of them, and would not yield to the usual Methods. Junker says, if this Composition makes the Eye smart too much, blowing therein will soon take off the Brandy, and leave the Camphire behind.]

But when there is a corroding Acrimony, the Mucilage of Quince Seeds with Rose Water, with a very little Saffron, is proper; to which, if it is necessary, a little Opium may be added.

If gentle Cathartics will succeed, he prefers them to the more violent, thus;

6. R. Mann. elect. ʒij. Rhubarb. Cremor. Tart. an. ʒj. Aq. Fœnicul. ʒviij. Colaturæ adde Extract. Centaur. min. gr. xij. Ol. Junip. gutt. iv. M. F. Potiuncula quæ man tribus successive haustibus capienda est, interponendo Jusculi avenacei Sorbitionem.

If there is a sharp Serum in the Blood, or the Ophthalmia is symptomatic, or if it proceeds from other Diseases, or is joined to a Hemicrania, then,

7. R. Rad. Sarsaparil. Scorzon. an. ʒiss. Sem. Fœnicul. ʒj. Antim. crud. in Petia ligat. ʒij. Sal. Tart. ʒj. Infundantur in Aq. ʒxx. & per Horam integram in Vase probe clauso bulliant. Let the Patient take half a Pint of this Decoction in a Morning, expecting a gentle Sweat to follow. The better to promote which, a Drachm of the following Powder may be taken in the same Decoction, Morning and Evening :

8. R. Corn. Cerv. C. ʒij. Rad. Pimpin. Antimon. Diaphor. Pulv. è Chel. Canc. comp. an. ʒj. Cinnab. ppt. ʒss. M. F. Pulvis.

And every Evening temperate Pediluvia may be used, as well as in other Kinds of this Disease.

Some noted outward Applications are to be avoided, because they sometimes occasion Blindness. That composed of Lime-Water, Sal. Ammoniac, and white Vitriol, is too sharp; that of Allum, Dragon's Blood, Bole Armenic, Calamy, Tutty, and the White of an Egg, is too astringent; that of the Waters of Frogs Spawn, Roses, Plantane, and Sugar of Lead, is too cooling; that of Calamy, burnt Hartshorn, and Tutty is too drying; that of the Mucilages of the Seeds of Fleawort, Quinces, Fenugreek, Gum Dragant, and fresh Butter, is too relaxing.

In a Chronical Ophthalmia, where there is a continual Dripping of a salt, sharp Lympha, mix a Scruple of white Vitriol with two Drams of unsalted Butter, of which put as much as the Size of a Pea into the greater Angle of the Eye; repeating it now and then. HOFFMAN.

Dr. Cheyne says, *Æthiops Mineral*, taken in a large Dose twice a Day, and continued a long Time, never fails of curing an inveterate Ophthalmia.

The following Cataplasm of Etmuller, is useful to ease the Pain.

9. R. Pulp. Pomor. dulc. Assat. q. v. Alb. unius Ov. cum Sacchar. Chryst. bene conquassat. Camph. gr. xij. M.

Junker

Junker commends white Vitriol as an excellent Remedy.

10. [R. Vitriol. alb. ℥iij. Aq. Fontan. ℔j. M. F. Collyrium.]

Weisbach, from Stahl, recommends the following, in this and all other Disorders of the Eyes, even in an incipient Cataract, and gives an Instance of a Girl who was blind, whom it restored to Sight.

11. R. Butyr. illot. ℥iv. Tutia ppt. ℥j. Coral. rub. Camphor. Sacchar. Saturn. an. ℥ss. Pompholyg. ℥ij. Virid. Æris, gr. xij. Misceantur optime, & versus Somnum cuius Oculorum Angulo ad gr. ij. immittantur.

Sir Hans Sloane, some Years ago, communicated his own Medicine to the Public, with which he has performed many great Cures; it is as follows:

12. R. Tutia ppt. ℥j. Lap. Hamatit. ppt. ss. ij. Aloes Succotrin. gr. xij. Marg. ppt. gr. iv. terantur simul in Mortario marmoreo & cum q. s. Adipis Viperini, fiat Linimentum.

The Method which has best succeeded with me in facilitating the Use of this Liniment, is to bleed and blister in the Neck and behind the Ears, in order to draw off the Humour from the Eyes; and afterwards, according to the Degree of the Inflammation, or Acrimony of the Juices, to make a Drain by Issues between the Shoulders, or a perpetual Blister: And for the washing of the Eyes, I generally recommend Spring Water. The best inward Medicines are Conserve of Rosemary Flowers; Antiepileptic Powders, such as Pulvis ad Guttetam; Betony, Sage, Rosemary, Eyebright, wild Valerian Root, Castor, washed down with Tea made with the same Ingredients; as also Drops of Spir. Lavendul. comp. and Sal. Volat. Oleos.

If the Inflammation returns, drawing about six Ounces of Blood from the Temples, by Leeches, or cupping on the Shoulders, is very proper.

The Liniment is to be applied with a Hair Pencil, the Eyes winking, or a little opened.

This Medicine has cured many whose Eyes were covered with opaque Films and Cicatrices, left by Inflammations and Apoplexys of the Cornea; as also where there was an excessive Pain in the Eyes, shooting upwards into the Head; It likewise is beneficial to weak and sore Eyes.

It is to be observed (contrary to Pitcairn's and the common Practice) that Cathartics, especially with the Addition of Mercury, are prejudicial to the Diseases of the Eyes, which are cured by this Medicine.

Of the SLOW and HÆTIC FEVER.

THERE is a remarkable Difference in Fevers of this Kind: Strictly speaking, a *Slow Fever* is that which has milder Symptoms, a gentler Heat, with profuse Sweats after Sleeping; after which, and before Noon, the Pulse is natural; there is not such a Want of Appetite, nor excessive Weakness, nor Dryness of the Skin, nor such dark-coloured Urine, nor so great Danger as in the *Hætic Fever*.

In a *Hætic* the Heat is continual, the Pulse always hard, weak, and quick; and after Meals, and in the Evening, the Heat, Hardness, and Quickness increase; the Skin and Tongue are hard, rough, and dry; there is a Flushing in the Cheeks; the whole Body is weak and flaccid; the Sleep is not refreshing; the Urine is reddish, with a Sediment below, and a fat, bluish Pellicle above; the whole Body is continually wasting, and the Bones stick out in every Part.

Besides, there is another Difference between them, the Cause of a *Slow Fever* lies most in the Fluids; of a *Hætic*, in the Solids. Hence, the *Slow*, by the Assistance of Medicine, may be cured; but the *Hætic* admits of no Cure, or one that is very difficult.

Hætic Fevers are chiefly Symptomatical, and proceed from dangerous Ulcers, *Vomica*, Abscesses and Corruptions of the *Viscera*. Hence, those who are affected with, and die of a *Phtisis*, *Abscess*, *Vomica*, or Ulcer of the *Lungs*, *Mesentery*, *Kidneys*, *Womb*, or *hidden Suppuration* in the internal Parts and Muscles of the *Abdomen*, or with a *Cancer* of the Genital Parts, *Breasts*, *Womb*; as also with a *Cachexy*, *Dropsy*, from an *Induration*, *Schirrus*, *Corruption*, and *Putrefaction* of the *Liver*, *Spleen*, *Omentum*, *Pancreas*, and Glands of the *Mesentery*, all go off with a *Hætic Fever*. The Cause of which is, a corrupt, putrid Humour, which depraves and spoils all the Juices of the Body.

Slow Fevers arise from obstinate, intermittent, or continual Fevers, from the Small-Pox and Measles, from profuse Hæmorrhages, from long Diarrhœas, Dysenteries, from an excessive Salivation, *Gonorrhœa*, or *Fluor Albus*; from Care, Watching, intense Study, hard continual Labour, inordinate Coition, or the Abuse of Spirituous Liquors.

Fatal Signs in a *Hætic* are a continually weak, quick Pulse, and an entire Loss of Appetite and Strength, insomuch that the Patient can scarce either move his Body, or sit in an erect Posture; an *Hippocratic Countenance*; little red or oily Urine,
made

made with a hissing Noise; a falling off of the Hair, a Looseness, immoderate Sweats, and Swelling of the Feet.

In the *Cure* of these Diseases, Respect must always be had to the *Cause*, and therefore I shall say something distinctly of each.

Of the Cure of Slow Fevers proceeding from Crudities.

When, after other Diseases, a *Fever* arises from *Crudities* proceeding from a bad Digestion, and the crude, sluggish Juices of the *Primæ Viæ* consequent thereupon, it is known by a *languid Feebleness*, *internal Heat*, *Propensity to Sweat*, especially in the Palms of the Hands and Soles of the Feet. In this Case, the Stomach and Parts adjacent must be cleansed from the *Sordes* which is the Fuel of the Fever: This may be done by a gentle Vomit of *Ipecacuanha*; it may be likewise carried downwards by *neutral Salts*, which will also help to promote Digestion, such as, *Terra foliata Tartari*, *Nitrum stibiatum*, *Sal Polychrestum*, a Solution of *Crab's Eyes*, *Tartar Vitriolate*, either alone or mixed with half the Quantity of *Rhubarb*, given often, but in small Doses. After the Alimentary Canal is cleansed, you must proceed to *Analeptics* and *Stomachics*, for which Purpose I would recommend the Tincture of *Cort. Eleuther.* and *Gentian. rub.*

If from Disorders in the Hypochondria.

When the Patient is plethoric, and *cachochymical*, *cacheetical*, *scorbutical*, or the *Menses*, or *Hæmorrhoidal* Evacuations are stopped, and cause this Disease; or if it proceed from *Voraciousness*, or bad Diet, or the Abuse of spirituous Liquors; then Endeavours must be used to free the Liver, Spleen, and Mesentery, and its Vessels and Glands, from Obstructions. For this Purpose, Mineral Waters are proper, as the *Selters*, likewise the *Thermæ*, or hot Bath Waters.

But where these cannot be had, I have used with Success, a Decoction of thin Veal Broth, with the Roots of *Succory*, *Fennel*, *Asparagus*, *Dog-Grass*, and *Viper-Grass*; the Patient is to drink a Quart a Day for some Weeks, taking before it some Preparation of Steel, such as the Tincture of Steel, or the Tincture of *Martial Flowers*.

If from an Erosion of the Stomach and Bowels.

When a *slow Fever* happens from an Erosion of the Stomach and Bowels, all sharp, salt, acid, stimulating Things are as bad
as

as Poison. I have known a Decoction of *Sassafras* and *Cortex Eleutheria*, in Milk, as also of Chamomile Flowers, and the Tops of Yarrow, drank to about a Quart to a Day, very serviceable; likewise Roots of Marsh-Mallows, or Rice boiled in Milk, or *Gum Dragant*. dissolved in Mint-Water. Milk Clysters are also beneficial, with the Yolk of an Egg. Turpentine and Honey, or other Emollients, with the Syrup of Marsh-Mallows. When there are *Spasms* in the Bowels, our *antispasmodic Pills* are useful, made of *Extract of Chamomile*, *Yarrow*, *Oil of Nutmegs*, *Extract of Saffron*, and *Castor*.

If from the Loss of the necessary Fluids, and Want of Strength.

When this Fever proceeds from excruciating Passions of the Mind, Sadness, Cares, hard Labour, Watching, Abstinence, inordinate Coition, the *Fluor Albus*, *Gonorrhœa*, *Diarrhœa*, giving suck too long, or running Ulcers, from which the Strength and viscid Juices are decayed, all Things that raise a Commotion in the Blood, and stimulate the Bowels, are bad; as also Aliment that is too substantial. It rather requires Rest both of Body and Mind, a light, temperate Diet, Medicines that sheath the *Acrimony*, allay the *Heat*, and gently raise the sinking Spirits.

Hence, Emulsions of Almonds, of the four Cold Seeds, are proper; as also Ass's, Goat's, or Woman's Milk, with the Juice of *River-creffes*; Chicken-Broth, Broth made of River-Crabs, or Wood-Snails bruised; some commend Oysters, if the Stomach will bear them, and Instances of their extraordinary Efficacy have been produced. But little Wine should be allowed, and that of the softest Kind, mixed with Water.

If from the Abuse of Spirituous Liquors.

In this Case all heating Spirituous Liquors, and Strong Beer, should be avoided; as also Analeptics, Incisers of Phlegm, and Stomachics. Gruel, after *Lower's* Method, will be proper, made of Oatmeal, *Succory-Root*, *Red Poppy-Flowers*, and a little sublimated Nitre; likewise Whey, with a little Nitre, or fresh Buttermilk, which is greatly esteemed for its extraordinary Efficacy; to these we may add, *Pisians* of Pearl Barley and *Succory*, thin Emulsions, and *Hartshorn* *Jellies*.

If from a Suppression of the Menses.

This Circumstance requires immediate Bleeding in the Foot, and resolvent Decoctions of Succory-Roots, Leaves of Sow-thistle, Daisy and Elder-Flowers, forbearing all strong Emmenagogues. But if the Patient has laboured long under a slow or Hætic Fever, and is greatly weakened and emaciated, Bleeding must be omitted. If after Lying-in the *Menses* are stopped, and there is a Hætic, with an Atrophy, Cough, Diarrhœa, universal *Languor* of the whole Body, and a slow consuming Heat, no Emmenagogues must be used, but directly the contrary. The same may be said of the Stoppage of the periodical Flux of the *Bleeding Piles*; for the giving of *Aloetics*, in this Case, has hurried many out of the World.

If from a Marasmus Senilis.

There are two Causes which produce tabific Fevers in Persons advanced in Years; the one is a *Plethora*, or rather a Quantity of thick Blood stuffing and obstructing the *Viscera* and the *Mesentery*: The other, a *Cacochymy*, from a Plenty of impure salt *Serum*, not secreted through the Skin, or otherwise.

If the Patient has been addicted to a sedentary inactive Life, his Appetite remaining good, and has omitted accustomary Bleeding, or the spontaneous Evacuations of Blood are ceased, and he is in Danger of a *slow Hætic*, Bleeding is indicated, and wholesome Diluters must be freely drank, abstaining from Food of too plentiful Nourishment, and using *convenient Exercise*.

In the other Case, you must carry off the *Sordes* by gentle *Laxatives* of Manna, Rhubarb, and Raisins; and the rorcid Juices must be renewed by Jellies, *Lacticina*, and especially *Asses Milk*, which will be very efficacious.

If the Hætic Fever of Children.

When this comes on after the *Small-Pox* or *Measles*, and the Belly swells while the upper Parts decay, it shews there are *hard, schirrous, steatomatous Tumours* in the *Mesentery*, as has been made appear by Dissections, and *Tubercles* and *Vomicæ* in the Lungs. This may be prevented, but not cured. If it proceeds from *Voracity* of Appetite, and *Refrigeration* of the Body, the Case is not desperate. The Use of temperate Baths of sweet Water, continued for some Time, will be of great Use; and to remove the Obstructions of the *mesaraic Glands* and Vessels, the frequent, but

but sparing Use of the following saline, aperient Mixture will be necessary :

1. R. *Sal. Tartar. Nitr. Arcan. duplicat. an. ʒij. Sal. Ammoniac. ʒiij. M.* A little of this must be put into the Child's Drink, according to his Age.

If a true Hectic Fever.

The *Roscid Juices*, which are continually wasting, must be repaired as much as possible by a *Milk-Diet*. The best is that of a sound Woman, sucked immediately from the Breast; that of an Ass nourishes less, but it refrigerates more, tempers the Heat, and is detergent and aperient. If Cow's or Goat's be used, it must be corrected, lest the Caseous Substance offend the Stomach. If Ass's Milk cannot be had, let the Patient, the first Morning, drink a Pint of Cow's Milk, while at Grass, in which an Ounce of *Manna*, or Sugar of Roses, or Conserve of Roses, has been dissolved. Afterward, about a Quart of Milk in a Day, with half an Ounce of Sugar, and half a Drachm of Nitre. When it proceeds from a *Fault* in the *Mesentery*, or an *internal Ulcer*, Milk and Water alone; but above all, the *Selters Waters* are proper. Or for Want of this, an Infusion in Water of *Male Speedwell*, *Sowthistle*, *Sage of Jerusalem*, *Liverwort*, *Coltsfoot*, *Ground-Ivy*, *Maiden-Hair*, *Flowers of St. John's Wort*, and *Roses*; give equal Quantities of this Infusion and Milk, with a little Sugar, and a few Drops of *Oil of Tartar per Deliquium*. It must be drank pretty warm, and continued for six Weeks: No *Wine* must be allowed, though a little *Mead* may, for the Stomach's Sake. But if the Patient be *hypochondriacal*, or the Fever is violent, with a Head-ach, Milk is not convenient.

Medicines that are greatly *corroborating* are also useful, as the Solution of *Coral* or *Mother of Pearl* in *Orange Juice*, *Cortex Eleutheriæ*, or the *Cortex Peruv.* made into an *Electuary*, with Syrup of Lemons, will be advantageous. [*Heister* affirms, he has cured many of these Fevers, with the Bark, in a few Days. Be that as it will, it is certainly a most efficacious Medicine in these Cases, and even in the worst Stage of a Consumption of the Lungs.]

But above all things, *Riding daily* must not be forgot, being the best Kind of Exercise, and highly beneficial in these Distempers.

Of the APOPLEXY.

THIS Disease is a sudden Abolition of all the Senses, external and internal, and of all voluntary Motion, commonly attended with a strong Pulse, laborious Breathing, a deep Sleep, and Snorting.

There is no Difference between a Person *asleep*, and in an *Apoplexy*; but that the one can be awaked, and the other cannot.

The *Causes* of this Disease are a particular Conformation of the Body, as a short Neck, for some have fewer *Vertebrae* in their Necks than others; a gross, plethoric, fat, phlegmatic Constitution; *polypous Concretions* in the carotid and vertebral Arteries, or about the Heart, or within the Scull, which are known by an unequal Pulse, a *Vertigo*, and sometimes a momentary Loss of Sight. An inflammatory Thickness of the Blood, preceded by a Fever, attended by the Head-ach, Redness of the Face and Eyes. An advanced Age, attended with a glutinous, cold, catarrhus, leucophlegmatic Constitution.

The Forerunners of an *Apoplexy*, in these last, are Dullness, Inactivity, Drowsiness, Sleepiness, Slowness of Speech, and in giving Answers, Vertigoes, Tremblings, Oppressions in Sleep, Night-Mares; weak, watery, and turgid Eyes; pituitous Vomiting, and laborious Breathing on the least Motion.

Other *Causes* may be, whatever compresses the Vessels of the Brain, as a *Plethora*, a *Cacochymy*, attended with Fulness of the Vessels; a *hot Constitution*; [these are most liable to this Disease after violent Motion and excessive Heat; and they should avoid *luxurious Diet*, spirituous Liquors, Spices, hot Cordials, and Vomits.] *Tumors* within the Scull; the Velocity of the Blood encreased towards the Head, and diminished downwards; *compression* of the Veins without the Scull, which bring the Blood back from the Brain; the *Effusion* of any Fluid compressing the *Dura* and *Pia Mater* externally; the *Effusion* of any Fluid within the Brain, which by its Pressure hurts the Origin of the Nerves; this is the most *common Cause* of Apoplexies, and proceeds from *Blood* in the Plethorical, from a *sharp Serum* in the Hydropical and Leucophlegmatical, and from an atrabilious Acrimony in the Melancholic, the Scorbutic, and the Podagric. Violent Passions of the Mind, and intense Study, are prejudicial to these. BOERHAAVE.

There are *three Degrees* of an *Apoplexy*; the *first* is, when the vital Fluids are, by the Force of violent Distensions, driven from

from the lower and outward Parts of the Body, to the external Parts of the Head, and to the Brain and its *Meninges*, by the *Carotid Arteries*; whereby their Vessels are expanded, and the free Circulation through them impeded. While this Stagnation of the Blood continues, the external and internal Senses are abolished; and as the Stoppage goes off they are gradually restored. Such are the Fits that *Hypochondriacal* and *Hysterical* Persons are subject to. [The like will happen sometimes from violent Reaching to vomit, and from a vehement Fit of Coughing.]

The *second Degree* is, when the Stagnation continues so long that the *Serum* oozes through the Vessels, and falls upon the Sides of the *Medulla Oblongata* or *Spinalis*, and so stops the Influx of the *nervous Fluid*, and produces a *Hemiplexia* or a *Palsy*.

The *highest Degree* is, when the fine Vessels of the *Pia Mater* are broke, and the extravasated Blood occupies the *Basis* of the Brain.

The *first* may be cured by timely Bleeding: The *second*, though it does not suddenly kill, yet it generally renders the Patient infirm ever after. The *third* is almost always mortal.

HOFEMAN.

The *immediate Forerunners* of an Apoplexy, are Trembling, Staggering, a Giddiness in the Head, a *Vertigo*, Dimness of Sight, a Stupor, Sleepiness, Forgetfulness, Noise in the Ears, more deep and laborious Breathing, the Night-Mare, &c.

A *slight Apoplexy* goes off in a profuse, equal, roscid, warm Sweat; a large Quantity of thick Urine, by the *bleeding Piles*, the flowing of the *Menses*, a *Diarrhoea*, or a *Fever*. If it is more *severe*, it usually terminates in a *paralytic Disorder*, and is seldom curable; but always leaves behind it a great Defect of Memory, Judgment, and Motion. BOERHAAVE.

Bleed in the Arm to xij Ounces, and then in the *Jugular* to vij Ounces, immediately after which, give ℥i℥s, or ℥ij. of emetic Wine. SYD. Or,

1. R. Vin. Antimonial. ℥ij. Oxymel. Scillit. ℥j. M. F. Haustus. Or,

2. R. Tart. Emet. gr. vij. F. una Dosis. BOERH.

[Physicians are greatly divided in their Opinions, with regard to Vomiting; but in a cold, phlegmatic, pituitous, or serous Apoplexy, a strong Vomit, as *Heister* observes, is necessary.]

Apply a large strong *Blister* to the Neck, hold the Patient upright in Bed, and let the Spirit of *Sal Ammoniac*, highly rectified, be held to his Nose. SYDENH.

Let there be strong Frictions of the Head, Feet, and Hands, and let the Patient be carried upright, backwards and forwards, about

about the Room, by two strong Men; for by such an Agitation I have known several brought to their Senses. As also by Scarifications of the *Sinciput* and *Occiput*. Strong Blisters should be applied to the Head, Neck, Back, and Calves of the Legs. Sharp Clysters should be thrown up into the Body, which have a Tendency to excite the Patient, and to cause a Revulsion. HEISTER.

3. R. Pulp. *Colocynth.* ʒss. Fol. *Tabac.* ʒiſs. Aq. ʒx. *intestis*, admisce *Sal. Gemm.* ʒij. M. F. *Clyſma acre.* BOERH.

Shaw advises, during the Fit, to bleed largely in the Arm, or rather in the Jugular, to apply strong Volatiles to the Nose, to give a large Dose of *Sal. Volat. Oleof.* in some convenient Water; to blow sneezing Powders up the Nose.

4. R. Pulv. *Aſari.* Rad. *Hellebor. alb. an.* ʒj. F. *Sternutatorium*; *cujus parum in Nares, mediante calamo, inſetur frequenter.*

As also to rub the Temples with spirituous Cephalic Mixtures.

5. R. Aq. *Hungar. Spir. Lavend. comp. Sal. Volat. Oleof. an.* ʒj. Tinct. *Caſtor. Ol. Succin. an.* ʒss. M. & cum hac Miſtura bene fricentur Tempora & detonsum Caput.

Likewise to blow into the Mouth and Nostrils, the Smoak of Tobacco from an Inverted Pipe, and to apply, if necessary; [which I think can be never] a hot iron near the Vertex or Occiput. SHAW.

The Reason why Emetics are used in an Apoplexy, is from the painful Sensation that is caused by strong Vomits and Purges; and the evacuating Faculty wherewith they are endowed. PITCHAERN. [Are not Cathartics, therefore, more preferable? For it is well known, that in straining to vomit, the Blood is forced strongly into the Head, the very Part from which a Revulsion ought to be made.]

6. R. Pil. ex *Colocynth. simplicior.* ʒj. vel xxv. gr. Dissolve in Aq. *Alex. simp.* ʒj. Syr. & *Spin. Cervin.* ʒvi. vel ʒj. M. & repetatur quoties Opus fuerit.

The following Clyster will be likewise proper for the same Purpose:

7. R. Decoct. com. pro Clyster. ʒix. Vin. *Antimonial. Syrup. & Spina Cervin. an.* ʒij. M. F. Enema.

Sydenham prescribes a Spoonful of compound Spirit of Lavender, to be taken two or three Times during the Paroxysm; but in my Opinion, no Kind of Cordial ought to be given, till Evacuations of all Kinds have preceded.

A Seton

A Seton may also be applied to the Neck, with no common Advantage. PITCAIRN. [We have an Instance of a Boy, in the *Med. Essays of Ed.* who had entirely lost his Memory by an Apoplexy, occasioned by a Fall from a Horse, who was perfectly cured by a Seton.]

To prevent a Return, let the Patient take ℥ij. of *Pil. ex Colocynth. cum Aloe*, every third Day, at Four in the Morning, and so go to sleep.

8. R. Conf. Flor. Lavend. Rorismarin. an. ℥j. Conf. Flav. Aurant. 3vj. Nuc. Moschat. condit. & Zinzib. condit. an. 3ss. Theriac. Androm. Vet. 3ij. Spec. Aromat. 3iss. cum q. s. Syr. Cortic. Aurant. F. Eleſtarium capiat ad Magnitudinem Caſſaneæ manè & ſero, ſuperbibendo Vini Albi 3ij. SYDENH.

Or the following :

9. R. Valerian. Sylv. Pæon. Mar. an. 3ij. Rad. Contrayerv. Serpentar. Virgin. an. 3ss. Diſtamn. Alb. Viſc. Quercin. an. 3j. Croc. Spec. Aromat. an. 3ss. Cinnab. Antimon. 3ss. Conſerv. Flav. Aurant. Nuc. Moschat. condit. Succ. Kerm. an. 3ss. Ol. Cinnam. gutt. vi. Syr. à Cort. Aurant. q. s. M. F. Eleſtarium ſumat. quant. N. Moschat. ter quaterve quotidie, ſuperbibendo cochl. v. Julep. ſequent.

10. R. Aq. Alexeter. ſimp. 3vi. Aq. Piperit. Spir. 3ij. Syr. Caryophyl. 3vi. Spir. Lavend: comp. 3ss. M. F. Julep. SHAW.

The Patient ſhould not be too free with generous Liquors, but live much upon Water-gruel, Barley-broth, and Chicken-broth.

11. R. Ambr. griſ. 3ss. Ol. diſtil. Sem. Anifi, Cinnam. Nuc. Moschat. an. gutt. ij. Ol. Caryophil. gutt. j. Sacchar. in Aq. Flor. Aurant. Solut. 3iv. F. ſ. a Tabellæ, quarum capiat unam ad Libitum.

On the Days in which Purging is omitted, he may be allowed Chicken, Lamb, and ſuch like Food of eaſy Diſeſtion. SYD.

Thoſe who have a Diſpoſition to this Diſeaſe ought never to go to Bed with a full Stomach, nor to lie with their Head low. ARBUTH.

Thoſe who have once had a Fit of the Apoplexy, are very liable to be ſeized with it again; and if they are plethoric, the beſt Preſervative is Bleeding, once in three Months, and uſing themſelves to a ſpare Diet; taking Medicines which ſtrengthen gently, and abſtaining from Cares, and all intenſe Applications of the Mind; not neglecting Iſſues and Setons, nor the drinking ſuitable Mineral Waters.

Of the PALS Y.

A *PALSY* is a lax Immobility of any Muscle, not to be overcome by the Will of the Patient. Sometimes the Sensation of the Part is absolutely abolished, and sometimes there remains a dull Sense of Feeling, with a Kind of Tingling therein.

It may be caused by all things that bring on an *Apoplexy*; that render the Nerves unfit to transmit the animal Spirits; that hinder the Entrance of the arterial Blood into the Muscle. Hence the Nature of a *Paraplegia* or *Hemiplegia*, and the Palsy of a particular Part, may be understood.

Hence a *Palsy* may proceed from an *Apoplexy*, an *Epilepsy*, extreme and lasting Pains, Suppressions of the usual Evacuations, Translations of the morbid Matter in acute Distempers; whatever distends, distorts, compresses, or contracts the Nerves, strong Ligatures, Luxations, Fractures, Wounds, Gangrenes, inflammatory and other Tumors of the Coats of the Nerves, in the *Ganglia* or the Nerves themselves. Extreme Heat, violent Cold, *mineral Effluvia*, and the too frequent Use of hot Water.

Palsies of the Heart, Lungs, and Muscles serving for Respiration, are soon fatal; of the Stomach, Bowels, and Bladder, from internal Causes, very dangerous; of the Face is bad, and easily changes to an *Apoplexy*.

If the Part is cold, insensible, and wastes away, it seldom admits a Cure; if attended with a violent Convulsion, and great Heat of the opposite Part, it is very bad.

The *Regimen* in this Disease ought to be warm, attenuating, consisting of spicy and cephalic Vegetables, such as create a feverish Heat, because it is necessary to dispel the Viscosity. Soapy Vegetables are best, and such as consist of an acrid, volatile Salt and Oil, Mustard, Horse-radish, &c. Stimulating by Vomits; Sneezing; relaxing the Belly; promoting Sweat by such Motions as can be used, or other Means; by strong Friction, &c.

Bleeding is to be used or omitted, according to the Symptoms which affect the Brain; it relieves in any inflammatory Disposition of the Coats of the Nerves. ARBUTH.

The *Cure* of the *Palsy* is to be attempted by *Attenuants* and *Discutients*, such as aromatic, cephalic, nervous, and uterine Vegetables; their fixed and volatile Salts, as also by their Oils; *Soaps* made of their Oils and Salts; the strong scented Parts of Animals; the Juices, Spirits, Oils, and Tinctures of Insects; fossile Salts, metallic Crystals, and Medicines compounded of these.

Likewise by Things which *stimulate strongly*, and which, by exciting a tremulous and convulsive Motion of the Nerves, drive out the impacted Matter; to this Class, Sternutatories and Emetics chiefly belong, *especially if often used at first*.

By *Purging* with warm, opening, aromatic Vegetables; with acrid Fossils; with *mercurial* and *antimonial* Preparations; in a large Dose, and repeated successively for several Days, by the Means of which a copious and lasting *Diarrhœa* may be excited,

By filling the Vessels of the Body with drinking a large Quantity of the *Attenuants* above-mentioned, and then by exciting a greater Motion and Sweat by the Vapours of Spirits set on fire.

Outwardly, *Frictions* may be used, either dry and hot, till the Part is red; or with Spirits endued with a stimulating Virtue; or with nervous Oils, Liniments, Balsams, or Ointments; vapour, or immersive Baths; acrid, aromatic, and drawing Plaisters; Cupping, Scarifications, Blisters; whipping the Part with Rods; exciting a slight Inflammation with Nettles, and the like. BOERHAAVE.

Let the Patient take *Pil. ex Colocynth. cum Al.* ℥ij. every other Morning, for six Times; and afterwards let him take, for a Month together, the Quantity of a Nutmeg, thrice a Day, of the following *Electuary*:

1. R. *Conserv. Coch. Hortens.* ℥ij. *Cons. Lujul.* ℥ij. *Pulv. Ari comp.* ʒvi. *cum. q. s. Syr. Aurant. M. F. Electuarium.*

After which let him drink six Spoonfuls of the following Water:

2. R. *Rad. Raphan. rustican. raspat.* ℔ij. *Fol. Cochlear. Hort.* M. xij. *Fol. Menth. Salv. Nasturt. aquat. & Becabung. an.* M. vj. *Sem. Coch. Hortens. parum contus.* ℔ss. *Nuc. Moschat.* ʒss. *Vin. alb. xij. distillentur Organis communibus; & eliciantur solummodo* ℔vj. *pro Usu.*

And let the Parts affected, and the *Spina Dorsi*, be anointed Morning and Evening, with the following Ointment:

3. R. *Unguent. Nervin.* ℥iij. *Spir. Lavend. comp. & Spir. Coch. Hortens. an.* ʒifs. *M.* SYDENHAM.

But, as since the Alteration of the Dispensatory, the *Ung. Nerv.* and *Spir. Coch. Hort.* are left out, the following Oil may be used in its stead:

4. R. *Ol. Succin. & Sassafras, an.* ʒj. *Ol. Rosmarin. Majoran. & Lavend. an.* ʒj. *Ol. Caryophyl. Nuc. Mosch. an. gutt. xv. Ol. Cinnam. gutt. x. M.*

Likewise,

Likewise, instead of the above Electuary, the following may be substituted, as being very efficacious to the same Purpose :

5. R. Conf. Coch. Hortens. $\mathfrak{z}$ iss. Absinth. Roman. Conserv. Flav. Aurant. an. $\mathfrak{z}$ j. Angél. condit. Nuc. Moschat. condit. an. $\mathfrak{z}$ ss. Theriac. Androm. $\mathfrak{z}$ ij. Pulv. Ari comp. $\mathfrak{z}$ ij. cum. q. s. Syr. Aurant. M. F. Electuarium, de quo sumat $\mathfrak{z}$ ij. bis vel ter in die.

After brisk Purges, as in the Apoplexy, the following Electuary, instead of either of the above-mentioned, if they will not do.

6. R. Æthiop. mineral. $\mathfrak{z}$ j. Gum. Guaiac. Cinnab. Antimon. an. $\mathfrak{z}$ ss. Rad. Valerian. $\mathfrak{z}$ ij. Castor $\mathfrak{z}$ iss. Sal. Volat. Ammon. Sal. Succin. an. $\mathfrak{z}$ j. Conserv. Cortic. Aurant. $\mathfrak{z}$ ij. Ol. Caryophyl. Succin. Sassafras, an. gutt. iv. cum q. s. Syr. è Cort. Aurant. F. Electuarium; capiat Quant. N. Moschat. ter in die.

After each Dose may be taken a Glass of White Wine, mixed with the *Vinum Amarum* of the New Dispensatory, except in a Morning, and then the *Vin. Amar.* is best diluted with Water.

Sometimes l. or lx. Drops of compound Spirit of Lavender, on a Lump of Sugar, may be taken by Way of Variety; or,

7. R. Rad. Valerian. Sylvest. pulverisat. $\mathfrak{z}$ ij. Cinnab. Antimon. $\mathfrak{z}$ j. M. F. Pulvis, mane & vesperi sumendus.

In gross and moist Constitutions, the following Infusion may sometimes be proper :

8. R. Sem. Sinap. contus. $\mathfrak{z}$ ij. Cinnam. contus. $\mathfrak{z}$ ij. Vin. alb. $\mathfrak{lb}$ ij. infunde frigide. Colaturæ adde, Spir. Lavend. comp. $\mathfrak{z}$ ij. M. capiat. Coch. iv. ter in die.

Harris asserts, that the *Chio Turpentine* has admirable Effects in this Disease, after this Manner :

9. R. Terebinth. è Chio $\mathfrak{z}$ ij. solv. in Vitell. Ov. immiscendo Syr. Caryophyl. $\mathfrak{z}$ j. Aq. Alexeter. simp. $\mathfrak{z}$ iv. M. F. Haustus. To be taken every Morning for four Times.

He also observes, that he has given $\mathfrak{z}$ vi. or $\mathfrak{z}$ j. of *Venice Turpentine*, dissolved in the same Manner, and made into a Draught, not only in the Palsy, but also with good Success in the Gout and Rheumatism.

Heister, among other Things, recommends *Sage-Tea* to be drank several Times in a Day, as a very useful thing; and *Eleosaccharum* of Cloves or Cinnamon. Externally, Boerhaave advises the following Fume :

10. R. Mastich. Oliban. Succin. an $\mathfrak{z}$ ss. M. F. Pulvis.

Take a Drachm of this, and sprinkle it upon a live Coal, and receive the Fume with hot Flannel, with which rub the Parts strongly.

When the Parts affected are flaccid,

11. R. *Spir. Lavend. comp.* ℥iij. *Spir. Sal. Ammon.* ℥ij. *Tinct. Castor.* ℥iv. *Aq. Castor.* ℥vi. *M. Perfricentur partes cum hac Misturâ.*

In a Palsy of the Tongue, *Allen* affirms, *Juice of Sage* alone restores the Speech; and he says he has made Use of the following Gargle with Success:

12. R. *Folia Salviæ, Rosmarin. an. Manip. j. Hyssop. Puleg. an. M. ss. Sem. Staphid. agr. Sinap. an. ℥ss. Coque in q. s. Aq. Fontan. ad ℔j. Colatur. add. Succ. Salv. depurat. ℥ij. Oxymel. Scyllitic. Aq. Reg. Hungar. an. ℥j. Syr. Caryophyl. ℥iij. M. F. Gargarisma.*

Let the Patient hold two Spoonfuls in his Mouth for some Time, and then spit it out, and repeat the same often in a Day. *Shaw* says, *Bleeding in the Jugular* is excellent in this Case, if the Strength will allow it; after which an Emetic is to be given; that Blisters greatly assist, as well as warm aromatic Bitters; as also a Drachm of *Spir. Lavend. comp.* dropt upon Sugar or Crumbs of Bread.

Cephalic Drops may be given freely in every Species of a Palsy, thus:

13. R. *Spirit. Volatil. aromatic. ℥iij. Spir. Lavend. comp. ℥ij. Tinct. Castor. ℥j. M. Capiat. gutt. xl. frequenter, e quovis vehiculo appropriato.*

The Bark and Wood of *Guaiacum*, *Sassafras*, and Mustard Seed, infused in Wine or Ale, for constant Drink, is likewise very serviceable.

The Palsy of the *East-Indies*, mentioned by *Bontius*, is called by the Natives *Beribery*, which signifies a Sheep; because when a Patient is first seized with it, he lifts up his Legs like that Animal when he walks. The Symptoms are a spontaneous Lassitude of the whole Body, a Deprivation of the Sense and Motion of the Hands and Feet, with a Stupor, and a tingling Sensation, as if they were numbed with Cold. It likewise affects the Patient's Voice in such a Manner, that he can scarcely be heard when he speaks. All which seem to take their Rise from a cold tenacious Humour. It continues a long while, and is never mortal, unless it affects the Muscles of the Breast and Throat, and then the Patient will be suffocated.

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In the Cure the Patient should not be confined to his Bed, but walk or ride, or use any strong Exercise, with strong Frictions of the affected Parts; which should also be anointed with the Oils of Cloves and Mace, mixt with the Oil of Roses. Half Baths are likewise good, made with the Herb called *Lagondi*, which has a Leaf like Arsmart, and has a sweet aromatic Smell: But if the *Petroleum* of *Achin* can be got, to anoint the Hands and Feet with, the Patient will be relieved to a Miracle. The Decoction of the Roots of *China* and *Sarsaparilla*, as also of *Guaidcum-Wood*, are of very great Service, with gentle Purges between whiles, of the Aloetic Kind. Bleeding is always prejudicial, and therefore must always be omitted. The Relics of this Disease may be carried off by Sudorifics and Diuretics.

A Course of Electrification, for some Weeks, has been known to have cured some, even inveterate, Palsies, though it has failed in others.



Of the EPILEPSY, or FALLING SICKNESS.

Sometimes this Disease comes on suddenly, and unawares; but it oftner gives Notice of its Accession, by some preceding Symptoms; the Chief of which are, a Lassitude of the whole Body, a heavy Pain of the Head, with some Disturbance of the Senses, unquiet Sleep, unusual Dread, Dimness of Sight, a Noise in the Ears; in some there is a violent Palpitation of the Heart, a Puffing or Inflammation of the *Praecordia*, a stopping of Respiration, a murmuring Noise in the Belly, foetid Stools, a Flux of Urine, a Refrigeration of the Joints: In others, there is a Sense, as it were, of a cold Air ascending from the extreme Parts to the Heart and Brain.

Then they fall suddenly on the Ground, (whence the Name of the *Falling Sicknefs*,) the Thumbs are shut up close in the Palms of the Hands, and are with Difficulty taken out; the Eyes are distorted or inverted, so as nothing but the Whites appear; all Sensation is suspended, insomuch that by no Smell, no Noise, nor even by pinching the Body, can they be brought to themselves; they froth at the Mouth with a hissing kind of a Noise, the Tongue is lacerated by the Teeth, and there is a shaking or trembling of the Joints.

However, the *Convulsions* vary, as well as the Defect of the Senses, both in Degree and Kind; for sometimes, instead of

convulsive Motions, the Limbs are all stiff, and the Patient is as Immoveable as a Statue. In Infants the *Penis* is erected; in young Men there is an Emission of *Semen*, and the Urine very often streams out to a great Distance.

At length there is a Remission of the Symptoms, and the Patients come to themselves after a longer or shorter Interval; then they complain of a Pain, *Torpor*, and Heaviness of the Head, and a Lassitude of all their Joints.

These Fits are more frequent or seldom, or longer or shorter, according to their different Causes. Some return on certain Days or Hours, or even Months, according to the *Quadratures of the Moon*, but especially about the *New or Full Moon*; in *Women* chiefly about the Time of *Menstruation*; and what is most remarkable, often upon a very slight Occasion; for Instance, any sudden Perturbation of the Mind, as a Fright, Anger, sudden Joy, intense Application, strong Liquors, excessive Heat or Cold, or venereal Exercises.

As to the *Prognostics*; in *Boys*, this Disease terminates about the *seventh*, the *fourteenth*, or the *seventeenth* Year, that is, about the Time of *Puberty*: In *Women*, about the *fourteenth*, viz. the Time of *Menstruation*. Likewise it has been found by Experience, that *chronical Epilepsies* have spontaneously ceased by the Change of Place, Diet, and Way of Life. Sometimes a *Quartan Ague* will put an End to an *Epilepsy* and *Convulsion Fits*. It is also remarkable, that the *Itch*, or any other *cutaneous Distemper*, such as the Small-Pox, Measles, Miliary Eruptions, &c. will either abate the Violence, or quite stifle the Disease.

The Patient therefore need not despair of a *Cure*, if the Disease is not of long standing, the Fits short, the Disorder not hereditary, and the Years advancing to the Time of *Puberty*; or if it proceeds from a Fault in the *Primæ Viæ*, from *Worms*, from a bad *Regimen*, or from a subcutaneous Disease ill cured. Nor is the Case desperate if the Epilepsy be slight, and when the Fit is foreseen by a Sensation of cold Air, rising from the extreme Parts to the Back, *Præcordia*, and Head, and also when it is ushered in by Anxiety, by Want of Strength, and a Propensity to vomit; or when the Senses are not quite abolished in the Time of the Fit, or when it comes on in the Night, without the Incurvation of the Thumbs.

It is a bad Sign if the Epilepsy makes its first Attack after the twenty-first Year, but much worse if the Fits grow more frequent; for then the Animal Functions are often destroyed, and not only the Memory, Wit, and Judgment are impaired, but the Patient grows stupid and foolish. It sometimes ends

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in Melancholy or Madnefs. When it turns to a Palfy or Apoplexy, it is mortal. HOFFMAN.

The *Epilepsy* is extremely difficult to be cured in Adults, but in Children it is the reverse. Blifters laid to the back Part of the Head are of great Ufe, a little before the Paroxyfm is expected: and the Time may more certainly be foreknown, as this Difcafe is influenc'd by the *Moon*, and attends upon its *Phafes*, efpecially the *New* or *Full Moon*. The moft proper Medicines to correct the Juices, feem to be *Native Cinna-bar* and *wild Valerian Root*. A Drachm of which may be given Morning and Evening for three or four Months; and afterwards, two or three Days before the New and Full. Or,

i. R. *Rad. Valerian. Sylveftr. pulverifat. ʒij. Cinnab. Nativ. optimè trit. ʒij. M. F. Pulvis mane & vefperi fumendus.*

However, it muft not be forgot, that this Difcafe owes its Origin to fo many different Caufes, and is bred in fo many different Conftitutions of the Body, and the fame Remedy which fucceeds in one Cafe often fails in another; and therefore different Medicines are to be tried, efpecially on Adults. And great Regard muft be had to the Times in which the Paroxyfms ufually return, in order to effect a Cure. MEAD.

If the *Veffels are full of Blood*, or it is carried with too great an Impetuofity towards the Head, then bleeding in the Ankles will be proper, or Leeches applied to the Hæmorrhoidal Veins. This often happens to hypochondriacal or hysterical Perfons, to the Melancholic, and Women with Child. Sometimes it will be proper to bleed in the *Jugulars*; or to apply Cupping-glaffes with Scarification to the Neck, and Parts near the Head.

If it has its Origin from a *sharp, impure Serum in the Head*, or in the Membranes and Veffels, as in *cacheetical* or *feorbutical* Perfons, or thofe who have been inconfiderately cured of cedematous Swellings in the Feet, old Ulcers, or Ifsues dried up; the driving in of the Itch, Scabs, or the ulcerating Humour of a *feald Head*: Then the Cure may be attempted by *Cathartics*, by Purifiers of the Blood, by evacuating the impure Humours with Setons, Ifsues, Cauteries, and Blifters.

If it proceeds from *violent Pain*; as, for Instance, from a Stone fticking in the *Ureter*, from the *Tooth-ach*, *Ear-ach*, or Spafms of the Stomach and Bowels, then Clyfters of Oil of Sweet Almonds, or the like, are to be adminiftred, with anti-epileptic Medicines.

If in *Children* it proceeds from *Gripes*, or the *breeding of Teeth*, nothing is better than to cleanfe the *Primæ Viæ* from Filth,

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Filth, by Milk-Clysters, with a little *Venice Soap* dissolved in them, and inwardly an epileptic Powder with *Cinnabar*; or with Extract of *Rhubarb*, and made into an Electuary with *Syrup of Roses and Manna*; or Musk, given to two Grains in a suitable Draught, is excellent in Childrens Fits.

If from *Worms*, after Antileptics and soft oily Things, *Anthelmintics* must be given, such as *Tansey*, *Garlick*, *Camphire*, *Asa Foetida*, *Worm-seed*, *Mercurius Dulcis*, and *Aeth op: Mineral*. [Or Powder of *Tin*, or *Aurum Musivum*.]

When the Fits return at certain Periods, or at the Quadratures of the Moon, a Clyster or a Vomit will be proper first of all, of half a Drachm of *Ipecacuanha*, in a Decoction of Raisins.

In the Time of the Fits, too free a Use of Volatiles, spirituous Liquors, and strong Smells are hurtful, as causing the Humours to flow too much to the Head: The best Method is to place the Patient in an erect Posture, and to rub the Hands and Feet pretty briskly.

The best Drink is Water, which will mitigate, if not cure, the Symptoms.

When the Disease is caused by *external Violence*, and thence an Extravasation of Humours in the Head, *Cinnabar* reduced into an impalpable Powder, and given in large Doses with other *Cephalics* and *Diaphoretics*, has a kind of *specific Virtue*. Outwardly, the following Liniment is excellent:

2. R. *Axungia Porcin.* ʒj. *Ol. Nuc. Moschat. express.* ʒss. *Ol. Rosmarin. Lavend. & Rut. an.* ʒj. *M. F. Linimentum, & inunge Nucham & Spinam Dorfi.*

When the Patient is so happy as to foresee the Accession of the Fit, then let him have immediate Recourse to Clysters, and Frictions of the lower Parts. HOFFMAN.

A Milk Diet alone has cured an inveterate *Epilepsy*. CHEYNE. *Mistleto* cures an *Epilepsy*, as sure as the *Bark* an intermitting Fever. The Dose to grown Persons is half a Dram or more, in Powder, every sixth Hour, drinking after it a Draught of a strong Infusion of the same Plant. If to every Ounce of the Powder, a Dram of *Asa Foetida* be added, the Medicine will be still more effectual. COLEBATCH.

Crato's Method of giving Native *Cinnabar*, is as follows:

3. R. *Cinnab. nativ. optime trit.* ʒss. *Coral. ppt. Marg. ppt.* ʒj. *Croc.* ʒj. *Fol. Aur. No. xv. M. F. Pulvis.*

The Dose is a Scruple in a cephalic Julep, Or thus,

4. R. *Visc. Quercin. Rad. Valerian. Sylv. Rad. Pæon. an.* ʒj. *Ras. Ebor. Corn. Cerv. an.* ʒiss. *Cinnab. nativ.* ʒj. *M. F. Pulvis.* Barbetta

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Barbette affirms, he cured a Girl in the following Manner :

5. *R. Castor. Sal. Tartar. an gr. iv. Resin. Jalap. gr. vj. Aloes Succotrin. gr. ix. Ol Majoran. gutt. ij. M. F. Pil. No. v. deaurentur.*

After this one purgative Dose, he ordered the following Draught twice a Day :

6. *R. Sapon. Hispan. albiss. 3ss. coq. in Lact. Vaccin. 3iij. pro Haustu.*

Pitcairn prescribes thus :

7. *R. Rad. Valerian. Syl. Cort. Peruv. an. ʒj. Succin. ppt. ʒss. M. pro Dosi, quæ detur ter in die horis Medicis. Or,*
 8. *R. Lumbr. terrestrium lotorum, igne vel sole exsiccant. & pulverisat. ʒj. paucis cedit. Or,*
 9. *R. Rad. Serpentar. Virgin. ʒj. Rad. Valerian. Sylv. gr. xxv. Coral. rubr. ppt. gr. xij. M. pro Dosi, qui iisdem horis exhibeatur ex Syr. Caryophyl.*

Cinnabar of Antimony is greatly celebrated for the Cure of this Disease, and may be taken from four Grains to a Scruple, in Conserve of Rosemary Flowers.

If the Disease is inveterate, give the following Pills for a Month:

10. *R. Castor. Gum. Ammoniac. ad. gr. viij. Rad. Valer. Sylv. ʒss. Sal. Tartar. gr. vij. Tinct. Castor q. s. massa Pilularis pro una Dosi.*

On every seventh Day a Cathartic should be given; and sometimes, instead of the Castor and the Gum, Filings of Steel may be substituted.

Ferreus and *Jachinus* affirm, they have cured many *Epilepsies* with a simple Decoction of Guaiacum, giving six or eight Ounces of it twice a Day; and the secondary Decoction of the same for their ordinary drink. This Decoction should be continued xxx or xl Days, to which may be added, Male Piony Root, or something of the same Kind; and every Dose may have a few Drops of the Spirit of Vitriol added thereto.

Fuller is very profuse in the Praise of the following *Electuary*, but says no more of it than it deserves :

11. *R. Cort. Peruv. pulv. 3vj. Rad. serpent. Virg. pulv. 3ij. cum q. s. Syr. Flor. Pæon. vel Pæon. comp. [vel Caryophyl. rub.] F. Electuarium molle.*

It is a most excellent *Anti-epileptic*, and a most certain Remedy, as I have learnt by Experience. The Dose (after proper Evacuations) to Adults, is a Dram, Morning and Evening, for three or four Months, and afterwards it must be repeated three or four Days before the New and Full Moon.

Mead has an Electuary against the *Vertigo* and *Epilepsy*, much of the same Nature.

12. R. Cort. Peruv. pulv. ℥j. Rad. Valerian. pulv. ℥ij. Syr. Cort. Aurant. q. s. M. F. Electuarium.

The Dose, after proper Evacuations, is a Dram Morning and Evening, every Day for three Months; and then it is to be repeated three or four Days before the New and Full Moons.

After all, there is no Medicine that can be depended more upon than Musk; for it is an excellent Remedy in all Diseases of the Nerves, particularly *Cramps*, *Convulsions*, *Vertigoes*, and *Epilepsies*. Ten Grains may be taken, Morning and Night, made up into a Bolus; if the same Quantity of Factitious Cinnabar be added to each Dose, it will not be the worse. We have an Instance of the Cure of a deplorable *Epilepsy*, in the *London Medical Essays*, by Electricity.

Of St. VITUS's Dance, and other Convulsive Disorders.

THE Cause of these Diseases does not lie in the Head, as in the *Epilepsy*, but in the *Medulla Spinalis*, and the Nerves proceeding therefrom. HOFF.

St. Vitus's Dance is a sort of a Convulsion, which Boys and Girls are sometimes subject to, at the Age of ten Years, to the Time of Puberty. It discovers itself first by a kind of Lameness, or an Instability of one of the Legs, which they draw after them in a ridiculous Manner, nor can they hold the Arm of the same Side still for a Moment; for if they lay it on their Breast, or any other Part of their Body, it is presently forced away from thence by a convulsive Motion, whether they will or not. If they are desirous of drinking, before they can bring the Cup to their Mouth, they use a thousand odd Gesticulations, like a *Mountebank*; for they cannot bring their Hand in a direct Line to their Mouth, but it is forced this way and that, till at length, if they have the good Fortune to hit the Mark, they throw the Liquor down their Throat as greedily as if they designed to raise Laughter in the Spectators. SYDENH.

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In a *convulsive Paroxysm* the Limbs are strangely agitated with various different Postures and Motions; sometimes the Hands are put behind them as if they designed to sit upon them, and soon after they seem to be beating the Air; then their Legs will be drawn hither and thither, as if they were dancing some *antic Dance*. Sometimes they will bend their Backs like a Bow, at the same time raising their Breast as high as they can; then their whole Body will grow stiff, and as immovable as a Stone. They generally keep on their Legs without falling; yet some will grovel on the Earth like epileptic Persons, and will weep, laugh, gnash their Teeth, gape with their Mouths, put out their Tongues, roll their Eyes, and whirl their Heads about in a strange Manner.

After the Fit, some are inexpressibly weak; some faint away, others fall into a deep Sleep; in others, again, the Fit is terminated with Eructations, Wind, Vomiting, and throwing out Plenty of Water. Very often a Mucus distils from the Nose, or Blood issues from thence, or from the *Uterus* or *hæmorrhoidal Veins*. Some, in coming to themselves, make a great Clamour, and the like.

These Persons have generally unquiet Sleep, and full of Dread and Terror, an uncertain Appetite, their Bodies generally a little costive; they sweat with Difficulty, but are subject to great Passions of the Mind. The Accessions of the Fits keep *exact Pace with the Phases* of the Moon. I have known some afflicted only certain Months in the Year. In Women they precede or accompany the Eruption of the Menfes. They are most frequent and worst after Meals; and are easily excited by the Passions of the Mind.

The Fits are generally preceded with a Coldness of the Feet and Limbs, or a Kind of tingling Sensation; which also affects the *Os Coccygis*, and like cold Air ascends up the *spinal Marrow*; there is a distended flatulent Pain in the left *Hypochondrium*, and such a Constipation of the Body, that neither Wind nor Excrements can make their Exit, nor will the *Anus* admit a Clyster-pipe; or, if it does, the Clyster and Excrements are thrown up by Vomit. The Bladder is likewise so affected, that no Urine can be made, or at least, but little, and thin and white. In others, the Accession begins with Yawning, Stretching, Anxiety about the Heart; a hard, unequal, contracted Pulse, the Heart-burn, Nausea, Vomiting, Palpitations of the Heart, Difficulty of Swallowing, Pains of the Head, Teeth, Noise in the Ears, Giddiness, &c. and then come on the Convulsions.

Though

Though this is a terrible Disease, it never kills suddenly; When it is recent, the Person young, and otherwise of a good Constitution, there is the greatest Hopes of a speedy Cure. If the usual Evacuations of Blood by the *Uterus* or *Hæmorrhoids* are suppressed, their Return will either mitigate or cure the Disease. On the contrary, if the Humours are thick and impure, the Suppression obstinate, their Temperament inclining to great Sensibility, the Age advanced, or the Disease hereditary, or become habitual, the Cure is difficult. Sometimes, through ill Management, it degenerates into an *Epilepsy* or *hypochondriac Melancholy*; and those that die of it, go off *apoplectic*.

St. Vitus's Dance is generally called a *Convulsive Disorder*, but I look on it to be rather *Paralytic*, and to take its Rise from a Relaxation of the Muscles, which, being unable to perform their Functions in moving the Limbs, shake them irregularly by Jerks. It is most commonly a slight Evil, and generally seizes weak Habits of Body; *Girls* more frequently than *Boys*, and seldom *Adults*. Wherefore I never found it difficult to be cured by the *cold Bath* and *chalybeate Medicines*. Some Physicians have tried, in vain, to cure these Disorders by *Sydenham's Method*, for want of attending to their periodical Return, according to the *Phases* of the Moon. I knew a lusty Girl, about five Years of Age, whose Convulsions were so strong and frequent, that her Life was almost despaired of: After Evacuations, and other Medicines, she continued well for a few Days, but was seized again at the Full Moon with a most violent Fit: After this, the Disease kept Pace with the Tides; she lay speechless during the whole Time of Flood, and recovered upon the Ebb. This continued till the New Moon; then a dry Scab, the Consequence of a Blister on the Crown of her Head, broke, from whence ran a considerable Quantity of limpid Serum, and this Running being encouraged, the Fits returned no more. However, I ordered her three or four Purges with *Mercurius Dulcis*, about the New and Full of the Moon. MEAD.

To cure the *St. Vitus's Dance*, take away about viij Ounces of Blood, more or less, according to the Age of the Patient; the next Day give half, or something more, of the common purging Potion, according to the Age, and in the Evening the following Draught:

I. R. *Aq. Alexeter. f. 3℥ss. Spir. Lavendul. comp. gutt. xxx. Theriac. Androm. ʒj. Tinctur. Thebaic. gutt. viij. M. F. Haustus.*

Let

Let the cathartic Potion be repeated thrice, every other Day, and the same Draught in the Evening. After which bleed again, and repeat the Cathartics three or four Times; and this Course may be pursued to the third or fourth Time.

On the Days free from Purgation, let the Patient take the following Things:

2. R. *Conserv. Absinth. Maritim. & Flaved. Aurant. an. ʒj. Conserv. Anthos. ʒss. Theriac. Androm. Veter. & Nuc. Mosch. condit. an. ʒiij. Syr. à Succ. Citr. q. s. F. Electuarium de quo capiat ad Magnitudinem Nuc. Moschat. manè & Horâ quintâ pomeridianâ superbibendo Vini sequentis Cochlearia v.*
3. R. *Rad. Pæon. Enul. Campan. Imperator. & Angel. an. ʒj. Fol. Rut. Salv. Beton. Chamædr. Marrub. alb. & Summitat. Cent. min. an. M. j. Baccar. Juniper. ʒvi. Cort. duor. Aurant. Incidantur, & infundentur frigide in Vini Canarini ℥vj. coletur tantummodo Usûs Tempore.*

[He then orders a *Fulep* of Things which are not now kept in the Shops, instead of which, the following may be substituted, *viz.* from twenty to fifty Drops of the *Tinctura Valerian. Volatil.* in a Glass of White Wine or Water; or, rather, in two or three Spoonfuls of Castor Water, sweetened with Syrup of Clove July Flowers; it is to be taken every Night at Bed-time.]

Apply to the Soles of the Feet, *Emplastrum à Caranna*. For Fear of a Relapse, at the same Season of the next Year, or a little sooner, in which the Distemper appeared, Bleeding should be again repeated, and Purging two or three Times. SYDENHAM.

I cured two Girls of this Distemper with the Expression of *Millepedes* and the *Peruvian Bark*, after Bleeding, and a gentle Cathartic. ALLEN. [This is an excellent Remedy.]

As to the Cure of other Convulsive Disorders, if the Patient is plethoric, or the Pulse great, it must be begun with Bleeding, either in the Arm or Foot; and, if Occasion require, it must be repeated two or three Times, but not till the Fit is over. The Air should be dry and serene, with constant Exercise; the Aliment should be easy of Digestion, and all hot, spirituous Liquors should be avoided. The constant Drink should be the Decoction of *Scorzonera Roots*, with Shavings of Hartshorn, or Whey, or the *Selters Mineral Waters*. *Pediluvia* are likewise proper of River-water, Wheat Bran, and Chamomile Flowers. They should be used pretty warm and deep, at the Time of going to Bed, and afterwards Sweating should be promoted.

The

The Patient's Body, if collicive, must be kept open with *Manna*, or with *oily Clysters*; and if the *Fomes* of the Disease is judged to be in the *Primæ Viæ*, it will be proper, at the *Changes of the Moon*, to give a *Vomit* with *Manna*; that is, an Ounce of *Manna*, with two or three Grains of *Tartar Emetic*.

I have known *convulsive Disorders* cured by the *free Use* of cold *Water* alone.

If, about the *Time of Puberty*, this Disease proceeds from too early or excessive *Coition*, or violent *Passions* of the *Mind*, all Things which cause a *Commotion* in the *Fluids* must be avoided, such as *Aromatics*, sharp *Purges*, *Emetics*, *spirituous Liquors*, *inordinate Motions* of the *Body* or *Mind*, and all heating Things in general. On the contrary, the *Diet* should be soft, *emollient*, and *nourishing*; such as *Cow's* or *As's* *Milk*, or *Whey*; as also *Baths* of sweet *Water* mixed with *Milk*. Likewise *Jellies*, and *Decoctions* of *Scorzonera*, *Barley*, *Hartshorn*, *Ivory Shavings*, and *Viper's Flesh*, for ordinary *Drink*, and *Chocolate*.

If it proceeds from *Worms*, the *Cure* depends on their being killed and expelled out of the *Body*: But all *Anthelmintics*, or *Worm-Medicines*, are not to be made Use of in this Case; such as *Garlick*, *Vitriol*, *Copper*, *Aloes*, sharp *Purges*, and *Mercurials*, because if they are given inconsiderately, they are hurtful to the *Nerves*. It will be better to use *Clysters*, made of *Milk*, sweet Things, and *Oil*; as also *Liniments* of a *Purging Quality* applied to the *Navel* and *Abdomen*. Inwardly may be taken *Semen Santonici*. If *Mercurius Dulcis* is given with a *Cathartic*, it will be necessary first of all to let the Patient take a few *Spoonfuls* of *Oil* of Sweet *Almonds*.

If it is caused by a *Suppression of the Menses*, *Emmenagogues* and hot *Medicines* are to be forborne; but *Bath Waters* and *Bleeding* will be proper; as also *Pediluvia*, if made pretty warm; hot *Infusions* of *Balm-Flowers*, and *Flowers* of the *Lime-tree*, *Tincture* of *Castor*, *absorbent Powders*, *Antispasmodics*, and *Anodynes*.

If from a *Stoppage* of the *hæmorrhoidal Flux*, besides *Bleeding* and the above *Remedies*, *Leeches* applied to the *Anus* will be of very great *Advantage*.

If with the *Stoppage* there is a *Swelling* of the *Spleen*, there is nothing better than *Preparations* of *Steel*; the following *vinous Infusion* is likewise proper:

4. R. Rad. Zedoar. Cichor. an. ʒss. Summitat. Centaur. min. Flor. Harmin. an. P. iv. Cort. Citr. recent. ʒss. Passul. min. ʒij. Vin. Rhenan. ℥ij. M. Digere leni calore & reserva ad usum.

Some-

Sometimes it arises from the driving back a *customary Sweating*, or from the *repelling itchy, ulcerous Excretions*, and other *Defædations of the Skin*; in this Case the *Acrimony of the Primæ Viæ* is to be absorbed, and the *spasmodic Strictures* to be abated by the following Powder:

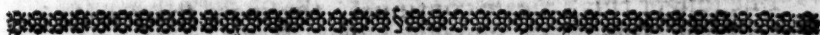
5. R. Pul. Vis. Quercin. ʒij. Rad. Valerian. Syl. Ocul. Cancror. ppt. Calc. Antimon. an. ʒj. Cinnab. Nitr. Croc. Extract. Castor. an. ʒj. M. F. Pulvis, *cujus Dosis est Scrupulus unus.*

In the Evening may be taken the following *antispasmodic Pills*:

6. R. Extract. Millefol. Florum Chamæmel. Fol. Card. Benedict. an. ʒj. Theriac. Androm. Succin. Cinnab. an. ʒss. Croci. gr. xii. Ol. Chamæmel. gutt. viij. M. F. Pilule. A Scruple or half a Dram is a Dose,

Laxatives should likewise be frequently given; as also *Ass's Milk*, mixed with *Selters Waters*, or *Whey* for some Weeks, with now and then a Dose of *Manna* and *Cream of Tartar*.

In all *convulsive Disorders*, all Things should be avoided which raise a Commotion in the Blood, such as hot, spirituous, volatile, astringent, and narcotic Medicines. In the Observations of the Medical Society of London, we have an Account of a deplorable Convulsive Case being cured by Electricity.



Of the CONVULSIVE ASTHMA.

AN *Asthma* is an impeded and very laborious Respiration, attended with an unspeakable Anxiety, and a Straitness about the *Præcordia*, hindering the free Circulation of the Blood through the Lungs, arising from Variety of Causes, and not without Danger of Suffocation.

There are several Sorts of *Asthmas*: One is, Difficulty of Breathing proceeding from *Corpulency*, and a very full Habit of Body; and is most apparent after violent Motion; but this is a slight Disorder, and free from all Danger. The next is the *pituitous Asthma*, attended with a *moist Cough*, and the bringing up pituitous Matter; it attacks the Patient at all Hours, and in all Positions of the Body, and is owing to a Plenty of a *viscid Mucus*, stuffing the *Vesiculæ* of the Lungs, and hindering the free Ingress and Egress of the Air through them. Another is owing to the *convulsive Contraction* of the Parts

Parts designed for Respiration, and proceeds from various Causes both within and without the *Thorax*; and this is called the *dry flatulent or convulsive Asthma*.

The *first Approach* of an *Asthma* was well known to *Aretæus*, who describes it thus; there is a Heaviness of the Breast, a Slowness to perform accustomary Labours, difficult Breathing when going up a Hill, the Patients grow hoarse, cough, and are troubled with frequent Eructations; they cannot sleep, and are scarcely warm in their Beds. As the Disease grows worse, the Cheeks look red, the Eyes grow prominent as if the Patients were strangled; they snore or wheeze while waking, but much more when asleep; they are fond of cold Air, and never care to be long in the House; they keep themselves in an erect Posture, and seem to suck in the Air with open Mouth; they are troubled with sweating about the Neck and Forehead; then comes on a violent Cough, and the Patient brings up a little cold frothy Matter. As they draw in their Breath the Neck swells, and the *Præcordia* are pulled upwards; the Pulse is small and quick; if it increases, the Patient is in Danger of Suffocation; but if it grows better, the Fits are seldom, and greater Plenty of Matter is coughed up, the Urine is more plentiful but without a Sediment, the Voice grows clearer, the Sleeps longer than are necessary, the *Præcordia* are set at Liberty; a Pain sometimes passes to the Shoulders, the Breathing is slow and gentle, but with a Sort of Wheezing. *ARETÆUS*.

The longer this Disease continues, the more sharp and violent all the Symptoms become. The Patient's Body grows more costive, and the Urine is thin and watery; most commonly the Feet swell, then the Hands, Face, and Back: There is a Numbness of the Arms, the Countenance is wan and livid, or of a leaden Colour. Then comes on a little Fever, which grows worse in the Evening; the whole Body is cachectic, with an oedematous Swelling of the Feet; there is a Dropsy of the Breast, or an *Ascitis*, or *Anasarca*; at least there is a Palsy on one Side, or of the Arm; or instead thereof a Palsy of the Eye-lids. This Disease is likewise called by some, a *suffocating Asthma*; by others the *nervous Asthma*.

When the Disease is *recent*, and is owing only to the *spasmodic Contraction* of the *Præcordia*, there are Hopes of a Cure; especially if the Matter of the Gout, Ulcers, and *Exanthemata* are sent back to their proper Seats. When the *Menses* or *Hæmorrhoids*, which were stopped, return, it yields Relief, and, if the Disease was not too far advanced, perfect Health. If it is inveterate, or ill managed, it brings on a Dropsy of the Breast, Obstructions of the lower Belly, oedematous Swellings of the Feet, a Cachexy, and

and an universal Dropsy. In general, all convulsive *Asthmas* portend a sudden Exit, or Suffocation, especially if there is a *Polypus* of the Heart: If it continues long, then the Patient will die of the Dropsy; in which Case it will be soon fatal; when there is a slow Fever, an unequal intermitting Pulse, a Palsy of the Arms, a continual Palpitation of the Heart, little Urine, a *Syncope* or Swooning, then Death is at hand. Some are carried off by an Inflammation of the Lungs, and the more grievous the Disease, the more languid the Pulse. The *Asthma* in old Persons, continues till Death: That which is caused by a Dislocation of the *Vertebrae* cannot be cured till they are reduced. The more violent the Accession, the longer it lasts, and the oftener it returns, with a greater Danger of Suffocation.

In the *Paroxysm*, because the Body is generally bound, and the Wind and Humours are carried upwards, the speediest Assistance is from emollient and carminative Clysters. Thus:

1. R. *Flor. Chamæmel. M. j. Bacc. Latur. Juniper. an. ℥j. Sem. Fœnicul. dulc. Cumin. an. ℥ss. decoque in q. s. Aquæ Fontanæ ad ℥x. Colaturæ add. Ol. Anis. ℥ij. Ol. Olivæ. ℥iss. Sal. commun. ℥ij. M. F. Enema.*

If there is Occasion, it may be repeated two or three Times. Afterwards use Frictions of the Feet, which have an incredible Efficacy; also let them be put into warm Water; for the Feet are almost always cold. When there is a violent Spasm about the *Præcordia*, hot Fomentations are necessary, or Bladders filled with hot Milk, and applied to the Part affected; likewise nervous Liniments are very useful, rubbed in with a warm Hand.

2. R. *Unguent. ex Althæâ ℥j. Ol. Mac. per express. Ol. Amygd. dulc. Spir. Lavendul. comp. Spir. Sal. Ammoniac. an. ℥ij. M. F. Linimentum.*

These must be applied to the Neck, Shoulders, Muscles of the Thorax, and the *Spina Dorsi*.

Internally, *Antispasmodics* should be given, with gentle *Diaphoretics*, thus:

3. R. *Tinct. Valerian. Volat. ℥iij. Tinct. Croc. Tinct. Castorei, Spir. Lavend. Comp. an. ℥j. Capiat. gutt. xl. è Cyatho Vin. Canariensis.*

And this is all that needs to be administered in the Fit.

Out of the Fit, if it proceeds from too great a Congestion of Blood about the Breast, or from a *Polypus* of the Heart, Bleeding in the Foot will be proper, as also Scarifications; in a Suppression

of the Hæmorrhoids, Leeches should be applied to the *Anus*; as also gentle Laxatives to cleanse the *Primæ Viæ*: Likewise bodily Motion, slender Diet, and soft Drink. If there are hypochondriacal or flatulent Symptoms, then gentle Laxatives will be the more necessary, together with Clysters. When the *Menses* or *Hæmorrhoids* are suppressed, nothing is better than the *Bath Waters*, both for bathing and drinking; or the *Waters of Selters* taken warm, and mixed with Milk.

When the *Asthma* proceeds from the driving back some impure Matter from the Skin, or from the drying up of Ulcers, and the Humour is translated to the nervous Parts of the Breast, then gentle Diaphoretics will be necessary to send it back to the *Superficies* of the Body.

4. R. Pulv. è Chel. Canc. comp. ℥ij. Calc. Antimon. Nitr. Succin. pulverisat. Rad. Valerian. Syl. an. ℥j. M. F. Pulvis. Half a Drachm of which is to be taken every other Morning, in Bed, with the Addition of two Grains of Camphire, to every Dose.

After which the Patient may drink Tea, made of Balm or Elder, or Lime-tree Flowers, with the Leaves of Scordium, or Veronica and Fennel Seeds, or any thing else of the same Kind. Remedies compounded of Sulphur are likewise very efficacious in driving back the morbid Matter to the Skin, tho' outwardly they are hurtful in cutaneous Diseases.

The *Balsamum Sulphuris Simplex* is a good Preparation in this Case, and may be taken from six to ten Drops.

Nor are gentle Laxatives, nor mild Diuretics, to be omitted in this Case. If a gouty Matter is the Cause, *Pediluvia* are necessary to recall it back to the Feet. HOFF.

The Returns of the Fits are to be observed and guarded against, by moderate Evacuations, as *Bleeding*, gentle *Vomits*, *Laxatives*, and sometimes *Cathartics*. But every thing that heats the Blood should be carefully avoided, especially about the usual Times of the Paroxysms; because there is generally then a lurking Fever, which ought not to be exasperated by heating Food or Medicines. Upon this Score Hippocrates advises to abstain from Clamours and Anger. And Van Helmont observed, that *asthmatic Paroxysms* return more frequently in Summer than Winter. For which Reason, the proper Medicines in this Disease, besides those above-mentioned, are such as are cooling, and at the same time promote Urine, as *Vinegar of Squills*, *Spirit of Nitre*, *Gas Sulphuris* *, which is a Water saturated with the Fumes of Sulphur. MEAD.

* This is the *Aqua Sulphurata* of the New London Dispensatory.

When

When this Disease arises from *oedematous Swellings of the Feet* driven back by a *sudden Fright*, *violent Passions*, *too great a Refrigeration*, or a *febrile Accession*, then it will be necessary to dislodge the *viscid Serum* from the Breast, which I have seen done by the following Powder:

5. R. Calc. Antimon. Corn. Cerv. ust. an. ʒj; Cinnab. Antimon. ʒij. Sulph. Antimon. Aurat. gr. iv. M. Capiat. ʒij. superbibendo infusum Theriorme.

The Feet are likewise to be well rubbed, not forgetting Clysters and very gentle Laxatives.

In a *dry Asthma*, proceeding from *Fumes of Lead*, an Air replete with *Exhalations from Quick Lime*, or the *Vapours of Pit-coal*; Milk, Cream, Oil of Sweet Almonds, Emulsions of *Spermaceti*, the Fat of Animals used internally and externally, answer every Purpose.

It will be necessary to observe, that all *sharp Purges* compounded of *Jalap*, *Gamboge*, *Coloquintida*, *Elaterium*, *Escula*, &c. as well as antimonial Vomits, are to be carefully shunned, because they dispose the *Genus nervosum* to *spasmodic Affections*. However, in a *cachectic Asthma*, when the Breast is full of *serous viscid Humours*, I usually give a small Dose of *Tartar Emetic* with *Manna*. In which Case, likewise, *Sulphur of Antimony* is of excellent Service; and Squills are greatly recommended for their inciding and resolving Virtue. Dr. Hefs says, he has cured the *Asthma* with *Powder of Squills*; it is given from four to twelve Grains, and its Efficacy in this Case is attested by several.

It is a common and very great Error in *oedematous Swellings of the Feet*, to give *drastic Purges*, for they only serve to hurry the Patient out of the World. HOFFMAN.

I have found a small Degree of a *Dropsical Anasarca* attended with much greater Want of Breath than the greatest Swellings of the *Ascites*; so that when I find a sudden Fit of an *Asthma* attack a Person without any other visible Cause, if I find the least *Fulness of the Face or Anles*, I never hesitate to fix upon this, especially if I find along with it a Pulse so much suppressed as scarce to be felt. A Lady, after being bled and frequently vomited, and using several *Anti-asthmatics*, had a Thickness of her Face, which made me examine her Anles, and they bearing the Impression of my Finger a little, shewed me the first Degrees of the *Anasarca*; in which I never doubt the *cellular Substance* of the Lungs being more or less affected the same way, and so compressing more or less the Extremities of the *Bronchia*, between which [cellular Substance] they lie, and so

Stopping the whole Circulation, which few other Causes can do, unless a general Spasm, or the *Bronchia* universally stuffed with Matter, or Water or Matter in the two Cavities of the *Thorax*. I was so positive about the Cause, in my Patient, that when every Body looked upon her as dying, and her Pulse was scarce to be felt, I gave her ten Grains of *Mercurius dulcis*, by which her Breath and Pulse were restored in the Morning; afterwards purging her two or three Times, and repeating the *Merc. dulc.* twice or thrice, at the Distance of a few Days, both the Swelling and *Asthma* were quite subdued. As *Diuretics* and *Quicksilver* have been famed for their Service in the *Asthma*, have we not Reason to suspect, that an *Anasarca*, so obsequious to these Remedies, is often the Foundation of the *Asthma*? SIMSON in *Med. Essays*.

In the removing of this Disease, I do not remember an Instance of failing in the Cure of any Person who has applied to me for Relief. I make Use of this easy Remedy.

6. An Ounce of Quicksilver is to be taken every Day, at what Time the Patient pleases, and a Spoonful of the Gas of Sulphur, in a large Draught of Spring Water, at Five o'Clock in the Afternoon and at Bed-time. DOVER.

Bleeding in the Paroxysm ought never to be practised; [this may justly be doubted;] because it renders the Disease more obstinate; nor will it be serviceable out of it, unless the Patient is plethoric, or the Blood is thick, or there is a Polypus in the Heart, or the usual Evacuations of Blood are stopt; and then, as a Preservative, it ought not to be omitted at the Equinoxes. And it will always be best to give a Clyster before the opening of a Vein.

Diuretics are necessary, but those made of fixivial Salts and Acids exasperate the Cough; Powder of Millepedes, Turpentine Medicines, and Balsam of Sulphur of Antimony are safe and beneficial.

7. R. Millep. vivent. el. contundantur in Mortario marmoreo, & add. Aq. Castor. ℥iv. Aq. Sem. Anis. comp. ℥j. in Colatur. dissolv. Gum. Ammoniac. ℥ss. & deinde add. Vin. Crocei ℥ij. Tinct. Valerian. syl. Volat. ℥ij. Syr. Balsamit. ℥j. Copiat. Cochlear. ij. vel iij. bis terve in die.

In a spasmodic *Asthma*, attended with the Cardialgia, and which proceeds from a Cramp of the Diaphragm, Liniments made of the Fat of Animals lately killed, the Grease of a Capon subtilized by the Heat of the Sun, or Barrette's Saponaceous Plaister with Camphire, are much better than things of a hotter Nature.

Country

Country Air, and following the Plough, are beneficial to restore the debilitated Tone of the Lungs; and Tea, made with Hyssop, Veronica, Ground Ivy, Liquorice, and Daisy Flowers, cannot be enough commended. But sweet Things, in every Kind of Asthma, are hurtful, especially in the humid or serous, and the hypochondriacal. HOFFMAN.

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Of the Moist, or PITUITOUS ASTHMA.

IF the Difficulty of Breathing is caused by viscid Humours, it is called the pituitous, or humoral Asthma, and chiefly differs from the former, with Regard to the Quantity of Phlegm that is thrown up. HEISTER.

An Asthma is known by a quick and great Respiration, in which the Diaphragm, the intercostal Muscles, and the Muscles of the Abdomen, are violently moved, with a Kind of a snoring Noise and Wheezing. An Orthopnea is the greatest Difficulty of Breathing, in which the Patient cannot breathe unless sitting, and in an erect Posture of the Neck. In this, the Muscles of the Breast labour greatly.

Take away ten Ounces of Blood, [see Hoffman's Opinion above,] and the next Day give the common purging Potion, which must be repeated twice more on each third Day.

On the Days when Purging is omitted, prescribe the following Things:

1. R. Sem. Anis. subtiliss. pulv. ℥ij. cum q. s. Balsam. Locatelli, F. Pil. ex singulis drachmis, vi. cap. iij. mane & quinta pomeridiana, superbibendo infusi amari simp. ℥iv. calide.

If the Symptoms still continue, repeat the same Process over again. SVD.

When there is a Wheezing, and the Spitting is viscid,

2. R. Aq. Cinnam. sim. ℥ij. Aq. Cinnam. spir. ℥j. Oxy mel. Scill. ℥ij. M. cap. Coch. ij. sæpius. Or,
3. R. Oxy mel. Scillit. ℥ij. Aq. Fontan. ℥ij. Aq. Cinnam. Spir. ℥ij. M. capiat. Coch. ij. ter quaterve in die.

Gum Ammoniac is in high Esteem with most Physicians, which may be taken in Pills from a Scruple to half a Drachm, or in the celebrated Potion of Brunerus.

4. R. Gum. Ammon. puriss. ʒiss. vel ʒij. Solve in Aq. Faenicul. ʒiv. & Vin. Rhenan. ʒij. dentur Sapius Coch. tria donec respirandi Difficultas remittat.

Dolæus thinks this Potion will be much mended with a Drachm of Sperm. Cet. and xxx or xl Drops of the Thebain Tincture. Et-muller and Pitcairn say, ʒss. or ʒj. of Sperm. Cet. alone, gives great Relief in the Fit. Heister directs Purging and Emetics, as also Blisters applied to the Legs, and Pediluvium.

Hoffman would have the Patient to take, every Morning, six or seven Cups of the following Infusion in the Manner of Tea, and sweetened with Sugar-Candy :

5. R. Fol. Veron. Hyssop. an. M. ij. Dracuncul. M. j. Sem. Faenic. ʒij. M.

And a large Dose of the following Powder every third Evening :

6. R. Pulv. Liquorit. ʒj. Rad. Pimpinell. alb. Irid. Florentin. an. ʒss. Bals. de Capiv. ʒss. M. F. Pulvis.

Likewise the following Laxative Potion every ten Days :

7. R. Mann. elect. ʒijss. Crem. Tart. ʒiss. Aq. Faenic. ʒv. Coque & solve leni calore. Colatur add. Ol. Anisi gutt. iv. M. F. Potio.

As also Bleeding thrice every Year, and drinking the Selters, and other mineral Waters.

Those who chuse to take Pills, may use the following, which are very efficacious :

8. R. Gum. Ammoniac. ʒij. Sill. pulverisat. ʒj. Sapon. Castil. ʒiij. Sacch. alb. q. s. M. F. Pilulæ ex singulis drachmis No. x. Cap. iij. mane & Horâ Somni.

When Paregorics are required, as they often are, the following is excellent :

9. R. Flor. Benzain. Opii colat. an. ʒi. Camph. ʒij. Ol. Anis. ʒss. Spir. Vin. rectificat. ʒij. Digere & cola.

Adults may take from xx to c Drops, at Night going to Bed, in a Glass of Mountain or Sack.

Huxham judiciously observes, that many Asthmatics are seized with a Fit when the Wind turns easterly, and then Bleeding will be convenient, nay, absolutely necessary. If the Difficulty of Breathing is remarkably great, then gentle antiphlogistic Purges, Gas of Sulphur, Vinegar and Oxymel of Squills, taken with Oxycrate, Hyaromel, or any small subacid Liquor, will put an End to the Fit; likewise putting the Feet in a Bath of warm Water will be very useful. I knew, says he, an agreeable young Lady, who

who was wont to be seized with a Difficulty of Breathing a Day or two before Menstruation, to whom this was a speedy, certain, and constant Relief.

On the contrary, those who are troubled with a *pituitous*, or *moist Asthma*, must be cured with Blisters, Volatiles, stronger Purges, and sharper Detergents.

Pitcairn was used to order *Resin of Jalap* and *Mercurius dulcis*, when Purging was necessary, or the following Pills :

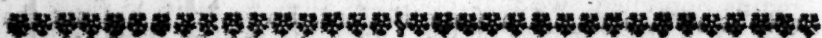
IO. R. Gum. Ammoniac. Diagryd. Resin. Jalap. an. ʒss. Sal. Succin. volat. gr. v. Elixir Aloes q. s. ut fiat Massa pilularis, pro unica Dosi.

Compare this with the preceding Section.

Akenfide observes, that when there is nothing in the particular Case, which can render the repeated Action of Vomiting unsafe, he knows of no Medicine so effectual, for removing the *spasmodic Asthma*, as *Ipecacoanha*; which he has now for several Years been accustomed to give with this Intention: Where he has found the Patient in a violent Paroxysm, he has ordered a Scruple of *Ipecacoanha* to be instantly administered, which failed not to procure great and immediate Relief. But in prescribing for the *chronical* or *habitual* Indisposition, he gives from three to five Grains every Morning, or from five to ten Grains every other Morning, according to the Degree of the Disease, and without particular Regard to any Paroxysm; in which Method he has sometimes persisted for a Month or six Weeks together. And though the Patients are apt to complain, both of the Nauseousness and the Fatigue attending it, yet, after a little Time, he has found them willing to acquiesce in it; or, where it had been laid aside, desirous to return to it. In a Dose of five Grains the Medicine generally acts as an Emetic: On some Persons, however, it has not that Effect, nor produces any Alteration in the Stomach beyond mere Sicknefs; which of course more frequently, indeed almost always, happens when only three Grains are given. Yet in these Instances he has found the Medicine equally useful, as in those where it proved emetic. So that the Relief which it brings to the Asthma does not depend on the Action of Vomiting, but seems owing to that general anti-spasmodic or relaxing Property belonging to the *Ipecacoanha*, and of which its emetic Operation itself appears, with great Probability, to be a particular Consequence. From a Variety of Cases, where *Ipecacoanha* was effectual, when the usual Methods had either failed, or had procured but temporary or short Relief, he recites two of the most remarkable.

Concerning this Method, there are slight and vague Hints in several Authors, though they relate chiefly or solely to the *humoral Asthma*. *Riverius* more particularly insists on Emetics as proper in that Disorder, and appeals to frequent Experience for their Use. His Reasoning, indeed, about their Effects proceeds entirely upon a Supposition, that the Difficulty of Breathing has its Rise from a Catarrh. But *Willis* rightly distinguishes the *convulsive* Species; which he imputes to the irregular Motions of the Animal Spirits.

This Distinction, however well founded, between the *humoral* and *spasmodic Asthma*, should not so absolutely take Place, as to exclude either of the two from being, in some Degree, complicated with the other; at least Catarrhs naturally excite Spasms in the Lungs; and though *spasmodic Astmas* are commonly observed without any Catarrh, yet the Removal of them, especially where *Ipecacuanha* is given, for this Purpose, seldom fails to be accompanied, or rather followed, by a considerable Expectoration. In other Cases, where a Discharge of this Sort is necessary, and yet attended with more than ordinary Difficulty, nothing so effectually promotes it as a just Emetic. In the *confluent Small-Pox*, when the Patient was almost strangled for Want of Spitting, Dr. A. has, on the Authority of *Sydenham*, given a Scruple of *Ipecacuanha* (instead of his antimonial Emetic) and after a Day or two repeated it with very great Benefit, from the Loads of Phlegm it brought up, too viscid and tenacious to be effected by any other Method. But in the *humoral Asthma*, this Impediment seldom proceeds to so great an Extremity; and more acceptable Medicines are generally sufficient for the Patient's Relief.



Of a COUGH.

THE Cough now under Consideration is a primary Disease, which greatly disorders the whole Body by its *Vehemence* and *Obstinacy*. Its Cause is, a Flux of serous Humours from the outward Parts and Extremities of the Body to the Lungs, and is seldom without feverish Heats and Shiverings towards the Evening.

It is either *moist* or *dry*; the former afflicts the Phlegmatic, whose Fibres are lax and Muscles soft, and who abound with serous and puitious Humours. Women are more liable to it than

than Men; as also Infants, Boys, and old Men, more than those in the Vigour of their Age. The *dry Cough* principally attacks the Hypochondriac, the Scorbutic, the Cachectic, and those who are lean and slender, and subject to convulsive Disorders, and whose Bodies likewise abound with a sharp Serum.

The most violent of these Kinds of Coughs is the *Tussis convulsiva*, or *serina*, whose Effects are so violent as almost to put the Patient in Danger of Suffocation: In Children, this is called the *whooping Cough*. Sometimes this is *dry* in the Beginning, or the Patient brings up a little thin Serum, more or less sharp. Sometimes it is *moist*, and then, after a very laborious Fit, the Patient expectorates a sublivid, and commonly a most tough Mucus. The extreme Parts grow cold, the Body is costive, the Urine and the vital Fluids are driven in greater Plenty and Force towards the Breast and Head; so that while the Paroxysm lasts, the Face is red and turgid with Blood, the Veins swell, the Arteries beat quicker and stronger, the Eyes are ready to start out of the Head, the Tears flow, the Eyelids swell, and sometimes the Blood, after Sneezing, springs from the Nose. Sometimes the very Vessels of the Lungs burst, and a Spitting of Blood ensues. Sometimes a Hiccup supervenes, and then at the same Time the Patient is affected with laborious Vomiting; some discharge their Excrements and Urine insensibly; and the Coughing of others is so violent as to cause Ruptures, especially in Children. Nor must it be forgot, that an Apoplexy may proceed from hence, or a sudden Loss of Memory, or a Palsy of the Hands or other Members.

As to the *Prognostics*, a *dry Cough* often turns to a *moist*, by hurting the Digestion, and rendering the Patient cachectic. When a *moist Cough* becomes suddenly *dry*, and the Breast remains oppressed, we may conclude that a *putrid* or *hectic Fever*, or an *Exulceration* of the Lungs, are near at hand. In the convulsive Cough of Children there is Danger of a *Suffocation*, which Cough sometimes happens, in difficult Dentition, and in the Measles. It sometimes causes *Gibbosity* and *Ruptures* in Boys; in Women *Abortion*; in Adults a *Spitting of Blood* and a *Phthisis*. Coughs that proceed from a *Schirrus* of the Lungs, or other *Viscera*, are incurable; if from driving in of *Exanthemata*, or Breakings out of the Skin, it grows easy as soon as they are thrown out again. All Coughs attended with Loss of Sleep are bad, as also that which is frequent, tedious, obstinate, and proceeds from a *Defluxion* on the Lungs. On the contrary, a moderate Heat in the Night-time, with an equal breathing Sweat throughout the whole Body, a larger
Flux

Flux of Urine, and the Body open at the same Time, a more quiet Sleep, and an easier Expectoration, are certain Signs that the Disorder is going off. **HOFFMAN.**

If the Cough is recent, and there is no Fever, nor other Signs of a bastard Peripneumony; or if it is not the Consequence of a Pleurisy, or a Peripneumony ill cured, by a Neglect of sufficient Bleeding, the Patient need only abstain from Wine and Flesh for some Days, and use the following Remedies at pleasure:

1. R. Balsam. Sulph. anisat. gutt. x. instilletur frustula Sacch. crystal. & bis vel ter in die devoretur. **SYDEN.**

Recent Coughs, after Bleeding, are softened by a Mucilage of Linseed, or by any common Sweet-oil: But the Oils are made more efficacious by the Addition of a volatile alkaline Salt, in this Manner:

2. R. Ol. Olivar. ℥iss. Aq. fontan. ℥vi. Spir. C. C. gutt. lx. Syr. Pectoral. ℥j. Cap. Cachl. iij. vel iv. quarta quaque Hora.

When the Obstruction is of an older Date, oily Medicines are not only useless, but relax the Stomach, quell the Appetite, and increase the Disorder. **Pringle.**

The Patient may also carry the following Lozenges in his Pocket, to be taken occasionally.

3. R. Sacch. cand. ℥iss. coq. q. s. Aq. fontan. usque dum adharescat, extremis Digitor. tum add. Pulv. Glycyrrhizæ, Enul. campan. Sem. Anis. & Angelic. an. ℥ss. Pulv. Irid. Florentin. Sulph. an. ℥ij. Ol. chim. Anis. ℥ij. F. Tabellæ.

In the mean Time, let him use the following Linctus

4. R. Ol. Amygd. dulc. ℥ij. Syr. Capill. Ven. Violar. an. ℥j. Sacch. cand. q. s. F. Lohoch. de quo sæpius lambat Bacilla Glycyrrhizæ quando Tussis urget.

In a thin Defluxion incrassating Linctus's may be used:

5. R. Conserv. Rosar. rub. Syr. Violar. & à Mecon. an. ℥j. Sem. Papav. alb. ℥iij. contundantur simul, & per Setaceum trajiciantur, deinde adde Ol. Nuc. Moschat. express. gr. vi. F. Eclegma.

The following is more efficacious:

6. R. Conserv. Rosar. rub. ℥ij. Syr. à Mecon. Violar. an. ℥j. Oliban. Mastich. & Succin. an. ℥j. Ol. Nuc. Moschat. per Expressionem, gr. vi. M. F. Lohoch. de quo lambat sæpe.

Likewise the Patient may take a Spoonful of this Linctus twice a Day, with eight or ten Drops of Balsam. Sulph. Anisat.

If the Cough will not yield to these Remedies, then it will be to no Purpose to rely on *Pectorals*, especially if there is a Fever along with it, or if it proceeds from a *Pleurisy* or *Peripneumony*. For then it is to be cured by Bleeding and Purgings, in the same Manner as the *Bastard Peripneumony*. *SYD.*

If there is a *thick coagulated Mucus* in the *Bronchia*, then the Root of *Florentine Orris* is proper, or five or six Grains of Powder of *Squills*, with a little *Nitre*, or *precipitated Sulphur*, *Flowers of Sulphur*, and *Sperma Ceti*. Or,

7. R. *Balsam. Tolutan.* ʒss. *Pulv. Rad. Irid. Florent. Enul. Campan. an.* ʒij. *Gum. Arab. Tragacanth. an.* ʒj. *Flor. Benzoin.* ʒij. *Sacch. Cand.* ℥ss. *Omnibus in Pulv. subtiliff. redactis, cum Mucilag. G. Tragacanth. q. s. M. F. Trochisci.*

When there is a thin, salt, sharp Defluxion, Jellies are proper, and a Decoction made of *Barley*, *Shavings of Hartshorn*, *Viper-grass Root*, and *Liquorice*; or the Decoction of *Turpentine* with *Sugar*; and above all Things, *Oil of Sweet Almonds* fresh drawn. Or,

8. R. *Ol. Amygd. dulc. Syr. Capill. Ven. an.* ʒj. *Sperm. Cet.* ʒiij. *Croc. gr.* xv. *M. F. Eclegma.*

When a *Tussis catarrhalis* affects the whole Habit or Body, with a Loss of Appetite and a *Tabes*, the Cure must be attempted with *Asses Milk* or *Whey*, or *Milk*, with equal Parts of *Selters Waters*; [and especially *Riding*.]

In a *moist, lasting, pituitous Cough*, the Body must be kept open with *Manna*, two Ounces at least, dissolved in any convenient Vehicle, to which may be added two Drachms of *Terra Foliate Tartari*, and a few Drops of *Oil of Aniseed*. If the Stomach will not bear Laxatives, Clysters must be used.

To promote an *equal Circulation of the Blood*, and to send back the *serous Humours* from the Breast to the subcutaneous Glands, hot pectoral Infusions will be convenient, made of *Flowers of Mallows*, *Violets*, *Leaves of Hyssop*, *Sage*, *Fennel-seeds*, *Aniseeds*, and *Cinnamon*. Also the *testaceous Powders* with *Calx Antimonii*, *Cinnabar*, and a few Grains of *Oil of Nutmegs* by Expression; as also *Saffron*; to which may be added *Flower of Sulphur*, if any scabby or itchy Matter has been driven in.

When the Cough is *outrageous*, *Saffron* mixed with *Bezoardics* is very friendly to the Breast; nor are *Storax Pills*, mixed with the aromatic Pills, less beneficial. [You may order about six Grains of the *Storax Pills*, with ʒj. or ʒss. of the *Aromatic*,]

Aromatic,] and give them at Bed-time; in the mean while not neglecting the *Expectorants*, Oil of Sweet Almonds and *Sperma Ceti*. Likewise the *Thebaic Tinctura*, mixed with Spirit of Hartshorn, is not unuseful for the same Purpose.

But the best Opiate, in this Case, is the *Elixir Paregoricum*; the Dose for Children is from five to twenty Drops; for Adults, from twenty to an hundred, and upwards. It is peculiarly excellent for Children in the *Whooping Cough*, or *Chin Cough*.

Outwardly, I recommend the following Plaister, which I have found by Experience to be very efficacious:

9. R. *Myrrh. elect. Bdellii, Succini, an. ℥ss. Sperm. Cet. Axung. porcin. Cera, Minii, an. ℥ij. Sapon. Venet. ℥ij. Croci, ʒj. Camphor. ʒss. M. F. Emplastrum, quod Pectori, Collo, Spinæque Dorsi imponatur.*

In the Decline of the Disorder, to strengthen the Stomach, the following Electuary:

10. R. *Conserv. Rosar. rub. ℥ij. Conserv. Anthos. ʒj. Succin. ppt. Nuc. Mosch. an. ʒij. cum. q. s. Syr. i. Cort. Aurant. M. F. Electarium, cap. quant. Nuc. Moschat. bis terve in die.*

The Patient should, as much as possible, breathe a temperate Air, shunning all salted and smok-dried Meats, poignant Sauces, for they render the Blood and Serum sharp and impure; he should also abstain from Malt Liquors, but more especially acid Wines. The Drink should be *Hydromel*; or, if the Patient is scorbutic, Water alone, the Cold being first taken off with toasted Bread. The Vulgar pour hot Water upon Wheat Bran, and drink the Infusion cold, not without Success.

As to *Bleeding* in this Disease, it is necessary for those who are full of Blood, and whose Veins are very prominent; or when the usual Excretions of it are suppressed; it is also a good Preservative, though the Person has passed his Seventieth Year. *Blisters* may likewise be used, in obstinate Cases.

In the older and more stubborn Coughs, or in the first Stage of a Consumption, when the Patient complains of Pains in his Side, Tightness of the Breast, or hot and restless Nights; I have trusted most to small but repeated Bleedings, and to the Squill Pills of the *Edinburgh Dispensatory*. *Pringle.*

Expectorants, sweet Things, and incrassating Decoctions should be used with Caution, for they relax the Lungs too much, if taken alone. In the *Tussis Stomachalis* and *hypochondriaca*,

chondriaca, they should be entirely omitted, lest a *Cachexy*, or a *Dropsy* should ensue.

In the *Tussis ferina*, or Cough of the most violent Kind, arising from the striking in of *Exanthemata*, that is, Spots or other Breakings-out of the Skin, *Ethiops Mineral* is almost a divine Remedy; or Flowers of Sulphur, taken inwardly in the Evening, with *diaphoretic Antimony*. Likewise Frictions of the Feet and *Pediluvia*, are more useful to draw Serum from the Breast than *Blisters*.

The *Hooping-Cough* of Children is only to be vanquished by *Bleeding* and *Cathartics*, which must be of the gentlest Kind, and given by Spoonfuls according to the Age. It is a most obstinate and almost insuperable Disease. *SYD.*

Sydenham rightly observes, that *Bleeding* in this Disease is greatly to be preferred to *Pectorals*; and *Harris* is of the same Opinion. All *oleous* and *mucous Remedies* I absolutely condemn; for they increase the Disease; cure it, I am sure they do not, however they may be authorized by the common Practice.

What I have found beneficial, by long Experience, is as follows: If there is an evident Sign of a *Plthora*, or the Spittle is tinged with Blood, I always prescribe *Bleeding*, and that more especially if a *Febricula*, which is often the Case, requires it, or the Child in coughing looks black in the Face. I sometimes repeat this, according to the Patient's Strength and Age. Soon after I give an Emetic of Oxymer of Squills, or the Infusion or Decoction of *Ipecacuanha*; for this Cough partly proceeds from the Stomach; and a Paroxysm scarce ever ceases till the irritating viscid Phlegm is thrown up by Vomit. Nay, sometimes there is such a Quantity of Filth, as to require a Puke three or four Times.

Then the Body is to be loosened with *℞. Carb. alkalisat. Mercury**, or Calomel; for the *mucous Sordes* must be carried off this Way, that it may neither taint the *Chyle* nor the Blood with Impurities; Likewise the Body too costive is prejudicial; for it brings on a *Febricula*, or aggravates the *Dyspnoea*.

* The *Mercurius Alkalisatus* is an Invention of Dr. *Burton's*, and is thus made: "Take two Parts of *Crabs Eyes* and one Part of *Crude Mercury*, and rub them in a Marble Mortar till the Globules of the Mercury disappear." This was communicated to *Huxham* by Dr. *Cheyne*. *Huxham* says, he has experienced the Efficacy of this Preparation, in various Diseases, a thousand Times; particularly in a Lenitor of the Blood, and Obstruction of the Vessels: For *Mercurials* prepared without a *saline Stimulus* are not only most efficacious in *intermitting Fevers*, but also in *Rheumatisms*, *Pleurisies*, and *Peripneumonies*, after the necessary Bleeding.

Nor

Nor are Evacuations all that is required; there is occasion for *nervous* and *stomachic* Remedies, and such Things as dissolve the *Lentor* of the Blood. For this Purpose *Mercurials* and the *Peruvian Bark*, joined to *Stomachics*, are proper. Difficulty of Breathing, and an Oppression of the Breast, are cured by a Solution of *Gum Ammoniac*, or the Expression of *Millepedes**. It will be necessary to appease the Violence of the Cough with the *Paregoric Elixir* taken in *Diacodium*. But if a sharp Humour distils into the *Larynx* or Lungs, it must be diverted with *Blisters*.

This Disease will readily yield to these Remedies, which otherwise is stubborn enough, and not to be vanquished but by Length of Time, and Change of Air. The *Specifics* of Nurses and old Women are not worth a Rush; even the *Musculus pyxidatus*, if it has any Virtue, has only a faint one of the *Peruvian Bark*: A Drug which, by dissolving the *Lentor* of the Blood, and strengthening the whole *nervous System*, so happily cures intermitting Fevers. And the periodical Return of the *hooping Cough* is often as certain as the Fit of an Ague, and is much of the same Nature: which is the more probable, because both Diseases are generally rise at the same Time, depend on the same Cause, and are cured by the same Remedies. HUXHAM.

Dr. Burton declares against Bleeding, Vomiting, and Purging in the *hooping Cough*, except in very urgent Cases. If the Disease proceeds from tough, viscid Phlegm, he says, the following Medicine has never yet failed:

II. R. *Extract. Cort. Peruv.* z iij . *Camph. Pulv. Cantharid.* an. ʒj . M.

He gives eight or nine Grains of this Mixture to Children every third or fourth Hour, in a Spoonful of some Simple Water, or a Julep, in which a little *Balsam Capivi*, dissolved in the Yolk of Egg, has been mixed. But if this Disease proceeds from a sharp thin Rheum, it is not proper.

* Dr. Cheyne prescribes the *Millepedes* thus:

R. *Millep. in Vin. alb. demers. q. v. Exprime Succum & adde Sacchar. alb. q. s. ut fiat Syrupus.* This, given a Spoonful at a Time, infallibly cures a convulsive Cough.

Pitcairn says, there should be xxv or xxx *Millepedes* to iv Ounces of Wine; and a Scruple of *Gum Ammoniac*, dissolved in ij Ounces of Penny-royal Water, is a Dose for Adults.

Of a PHTHISIS, or Consumption of the LUNGS.

IF an Ulcer of the Lungs consumes them so far that the whole Habit of Body wastes away, it is called a Consumption of the Lungs.

This Ulcer may proceed from any Cause, which may detain the Blood in the Lungs, so as to change it into a purulent Matter.

The Causes may be referred,

I. To that Temperament of the Body which tends first to spitting of Blood, then to an Ulcer of the Part where the Blood has made its Way through. This consists,

In a Tenderness of the arterial Vessels, and in the Impetus of a more or less acrimonious Blood. This is known from a View of the tender and fine Vessels, and of the slender Make of the whole Body, a long Neck, a flat and narrow Thorax, depressed Scapulae, the Blood of a bright red, thin, sharp, and hot, the Skin transparent, very white and fair, with a blooming red in the Cheeks; the Wit quick, subtle, and early ripe with regard to the Age, and a merry chearful Disposition.

In such a Debility of the Viscera as disposes their too tenacious Contents to produce Obstructions, Putrefactions, and to grow acrimonious, whereby the Vessels are corroded, first causing spitting of Blood, and then Ulcers. This is discovered by a slight Febricula, a little dry Cough, an unusual Heat, a Redness of the Lips and Mouth, a Flushing in the Face; which are most apparent when the new Chyle enters into the Blood; a Propensity to Sweating when asleep, a Weakness, a Shortness of Breath, encreasing upon the least Motion.

In that Age when the Vessels have attained their full Growth, and will not admit of any farther lengthening; when at the same Time the Blood increases in Quantity, Acrimony, and Force; which happens between the sixteenth, and thirty-sixth Year of the Patient's Age.

In an hereditary Disposition to this Disease.

These Dispositions to a Phthisis are hastened,

By a Suppression of accustomary Evacuations, especially the sanguineous; as the Hemorrhoids, Menses, Lochia, Bleeding at the Nose, usual Blood-letting, chiefly in the Plethoric, and those who have lost a Limb.

By any violent Shock of the Lungs, by Coughing, Shouting, Singing, Running, violent Efforts of the Body, Anger, and Wounds.

By

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By *sharp, saline, aromatic Aliment, or Drink*, by the particular Manner of Living, by another Disease, whence the Quantity, Acrimony, Velocity, Rarefaction, and Heat of the Blood are increased. Hence it frequently happens from acute Fevers, the Plague, Small-Pox, and Scurvy.

II. Likewise this Collection of Pus may proceed from a *Pleuripneumony*, which terminates in an *Apoſtem*, and is known by the Signs proper thereto.

III. When there is an *Emphyema* formed, it may corrode, destroy, and consume the Lungs, and so produce the same Disease as if they were waſted away by an Ulcer generated in their own Substance. This is likewise known by its own proper Signs. *Boerhaave.*

The Sign of an *approaching Phthisis* is a dry Cough, which may continue for ſome Months; whereas a *ſimple Catarrh* is attended with Spitting, and is but of ſhort Duration. Vomiting, or a Diſpoſition to vomit after Eating, excited by the above-mentioned Cough, is a moſt certain Sign of a *Phthisis*. *Morton.*

It invades Perſons from eighteen to thirty-five Years of Age; the whole Body waſtes away. There is a *hectic Fever*, which is moſt apparent after Meals, and is known by the Quickneſs of the *Pulſe*, and the Redneſs or Fluſhing of the Cheeks: The Matter brought up by the Cough is bloody or purulent; if it is ſpit into the Fire, it yields an offensive Smell; if into a Veſſel of Water, it falls to the Bottom. *SYD.* Though it is thick, it is not glutinous or tenacious, but fluid, and of different Colours, viz. Yellow, Green, but moſt commonly of an Aſh-Colour. *Morton.*

This Diſeaſe begins with a *ſlight Pain, moderate Heat*, and an uneasy or oppreſſive Straitneſs of the Breſt. When Blood is brought up by Coughing, it is generally of a florid, ſcarlet Colour, and frothy, and proceeds from the Lungs with a remarkable Noiſe. It is mixed with Fibres, Films, and ſmall Portions of arterial, venal, and bronchial Veſſels: The Pulſe is ſoft, ſmall, and undulating; the Breathing is difficult; and theſe Symptoms are preceded by a ſaltish Taſte in the Mouth. *Boerhaave.*

Blood is coughed up from the Lungs ſometimes without any Pain; and if there is a Veſſel broken, it moſt commonly flows out in a great Quantity at the firſt Eruption, and afterwards more ſparingly: In the Beginning it looks thin, pure, and florid, with a yellowiſh Froth; after a while it turns more pale and watery, with little Bubbles in it; and at laſt, it comes up with purulent Matter mixed with it. *Harvey.*

Spitting

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Spitting of Blood is cured by copious Bleeding every third Day, to the fourth Time, or till the inflammatory Pellicle entirely disappears. *Sydenham* advises the taking away ʒx. of Blood, to take the common purging Potion the next Morning, and at Night an Ounce of *Diacodium*. *Hoffman* likewise advises gentle Purging and *Pediluvia*, as also putting the Hand, into warm Water. For appeasing the Orgasm of the Blood, he thinks nothing better than Spirit of Vitriol, but more especially the Tincture of *Roses* acidulated therewith; *Morton* very judiciously prefers the *Peruvian Bark*. Refrigerating, thickening, styptic lenient Remedies, used a considerable Time, are serviceable, with which may now and then be mixed the most lenient Balsamics. *Boerhaave*.

1. R. Bol. Armen. ʒj. Pulv. Rad. Symphyt. ʒij. Ferr. sigillat. Lap. Hamatit. & Sang. Dracon. an. ʒj. Sacchar. albiss. ad Pondus omnium. M. F. Pulvis subtilissimus, cujus cap. ʒj. mane, quinta pomeridiana & nocte, superbibend. sequent. Apozem. ʒiv.
2. R. Fol. Plantag. Rub. sylvest. & Millefol. M. j. coq. in Aq. ad ʒss. in colatur. dissolv. Syr. Papav. errat. ʒij. M. F. Apozem. vel cap. Cochlear. iv. sequent. Tincturæ.
3. R. Flor. Ros. rubr. ʒvj. Cort. intern. Querc. ʒss. Sem. Plantag. parum contus. ʒiij. Aquæ Fontan. ʒij. Spir. Vitriol. q. s. ad levem Aciditatem, infundantur in Vase clauso, Calore leni per iv. Horas: colatur. Adde Aq. Cinnamom. simp. ʒiij. Sacchar. albiss. q. s. ut fiat Tinctura gustui grata, SYD.

Or when other Remedies have been tried in vain:

4. R. Aq. Hordeat. Vin. rub. an. ʒss. Syr. Papav. errat. ʒj. Spir. Vitriol. fort. quantum Lingua ferre potest. M. F. Julep.

Hoffman advises the following Powder, as preferable to every Thing else, in appeasing the spasmodic Strictures of the Lungs:

5. R. Sem. Hyoscyam. alb. Ocul. Cancr. an. ʒj. Nitr. gr. xij. Camph. gr. j. M. F. Pulvis.

Mead's Pills may likewise be useful, as a Styptic.

6. R. Alum. Rup. ust. & pulv. ʒiij. Sang. Dracon. pulv. ʒj. Syr. alb. q. s. ut F. Pilulæ magnitud. medioc. Cap. v. prima mane & hora somni.

A prudent Use of the Non-Naturals is likewise necessary, that may best oppose the Cause of the Disease, and chiefly a proper Aliment, and Manner of Living; a Milk-Diet is preferable to any other.

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When the Cure is performed, it will be necessary, by Way of Prevention, to bleed once in six Months, for several Years together.

But if, by reason of the Violence of the Disorder, the unskilful Use of *Styptics*, or a Neglect of the Method of Cure above directed, there should, after the Spitting of Blood, arise a Difficulty of Breathing, which continually increases, a wandering shivering Heat and Redness of the Cheeks, a dry husky Cough, a slight hectic Fever, a preternatural Thirst, a Weakness, or Sense of Weight in the Breast, it is a Sign that the Wound from whence the Blood flowed, has already begun to change to Matter about its Lips. Then under the Crust of dried Blood *Pus* is formed, and this Collection degenerates into a *latent VOMICA*, and that being broken becomes an open Ulcer of the Lungs.

The Effects of an Ulcer of the Lungs thus formed, are generally these which follow; an Increase of the Acrimony and Quantity of the putrid *Pus*; a Dilatation and corroding Maceration of the Membrane or Bag in which it is contained; a Conversion of the Blood-Vessels and the *Bronchia* into *Pus*; a purulent Consumption of the whole Lungs, or of one of its Lobes; a continual dry Cough, or Spittle shook off by the constant Concussions of the Cough; a Conversion of the Blood flowing into the Ulcer into *Pus*; an Increase of the *Vomica* in the Lungs; the bursting of this *Vomica* into the Tube of the *Larynx*; the sometimes suffocating Discharge of the *Pus*, or the daily coughing up of Matter, which sinks in Water, and is thick, sweet, fat, foetid, white, red, yellow, livid, ash-coloured, or streaked; and which, put into the Fire, has the Smell of burnt Flesh. Sometimes the *Vomica* breaks into the Cavity of the Thorax, from whence proceeds Difficulty of Breathing, and the other Symptoms of an *Empyema*, (which see.) Then the Respiration grows exceeding bad; the *Chyle* and the whole Mass of Blood are converted into *Pus*; the usual Method of Nourishment is destroyed, the Solids continually consume and waste away; a *hectic Fever* appears, with a small languid Pulse, and the Heat in the upper Parts intense, the Cheeks look red, and the Face *Hippocratic*. Generally there is an inexpressible Anxiety towards the Evening; an unusual Thirst; profuse nocturnal Sweats; red Pustules; a Swelling of the Feet or Hands on the Side affected; excessive Weakness; a hoarse Voice; a falling off of the Hair; an Itching throughout the Body, with watery Pustules; a debilitating *Diarrhoea*, with yellow, fetid, purulent, cadaverous Stools; a Suppression of the Spitting, and then Death.

Hence

Of a Phthisis, or Consumption of the Lungs. 307

Hence the following *Prognostics* may be formed.

An *hereditary Phthisis* is the most dangerous of all, and is *incurable*, unless the *Spitting of Blood* be prevented.

A *Phthisis from external Violence*, that is, proceeding from Spitting of Blood caused thereby, is the slightest of all, *cæteris paribus*.

A *Phthisis in which the Vomica breaks suddenly*, and the Patient easily brings up a white, concocted, smooth *Pus*, and in Quantity proportionable to the Ulcer, without Thirst, and with a good Appetite and Digestion, due Secretions and Excretions, is curable, though with Difficulty.

A *Phthisis from an Empyemâ* is *incurable*.

Heavy, solid, stinking, sweet Spittle, with Night-Sweats, livid Cheeks, Paleness of the Face, the Nostrils pinched up, Sinking in the Temples, Incurvation of the Nails, falling off of the Hair, and a colliquative *Diarrhœa*, are Signs of approaching Death. SYD.

When a *Vomica* is known to be formed in the Lungs, then the Physician must endeavour to *ripen and break it*; which is to be done by *Milk-Diet*, *riding on Horseback*, warm Vapours and Expectorants; which done,

1. The Blood must be guarded and defended against the purulent Infection, by Remedies which are moderately and agreeably acid and saltish, by vulnerary Herbs, smooth Balsamics given in various Forms, in great Plenty, and continued a long Time.

2. The Ulcer must be cleared, as soon as possible, from the purulent Matter, the Lips of it cleansed and consolidated, which is to be done by liquid Medicines, by Things which promote Coughing, both internally and externally, by Motion, Riding, Country Air; these are Expellents. The Cleansers are, *detergent Balsamics*, used inwardly and outwardly. The Consolidators are Purgatives.

3. The *Aliment* must be such as requires the least Force to make it pass freely through the Lungs, and be there assimilated, and at the same Time be fit for Nourishment. Asses Milk is very suitable to this Intention, as also *Buttermilk*, which *Baynard* recommends as a Substitute; but I am of Opinion, that it exceeds it, for I lately knew a very extraordinary Cure performed by *Buttermilk*, when the Case was looked upon as desperate; as also *Ptisans*, Broths, and *Lacticea*. BOERH.

I have found *small repeated Bleedings* not only beneficial in old Coughs, threatening Consumptions, but also after purulent Spitting and hectic Symptoms have appeared. The Quantity of Blood to be drawn is from four to seven or eight Ounces,

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once in eight or ten Days. The Blood has been constantly fizy ; but if ever it should be seen in a disordered State, it will be highly improper to take any more away. Allowance is always to be made for the Strength of the Patient, and the Quantity of Blood is always to be suited to the Condition of the Weak.

I can freely recommend, from repeated Trials, the Use of Setons, or Issues, made in the Side of the Part that is most affected.

In the *advanced State of a Consumption*, we may distinguish two Sorts of Coughs ; one caused by the Ulcers, and the other by a thin Rheum falling on the *Fauces* and *Trachea*, which Parts being then deprived of their Mucus, become extremely sensible to Irritation. This last Kind, perhaps, is the most painful and teasing to the Patient.

The first Kind of Cough is to be treated with Balsamics, if the Ulcer is open, and the Matter can be expectorated. Therefore give ten Drops of Balsam of *Capivi*, twice a Day, in a Bolus of Conserve of Roses ; or,

7. R Balsam. *Capivi*, ʒj. solve in Vitell. Ovi, q. s. & adde *Aquæ Fontan.* ʒiv. *Aq. Cinnamom. sp.* ʒj. Syr. Cort. *Aurant.* ʒss. *M. cap. Cochl.* ij. bis in Die. Adde pro re nata, Elix. *Paregor.* ʒij.

The last Ingredient is occasionally added, to keep the Balsam from purging.

The other Kind of Cough can be only palliated by Incrassants, and for that Purpose give Conserve of Roses and Opiates. The last are apt to heat and bind the Body, and to obstruct Expectoration. But these bad Qualities are, in a great Measure, to be corrected by Squills. Therefore, as soon as the Patient begins to complain of restless Nights from Coughing, give a Draught with ʒiss of *Oxymel* of Squills, and gutt. xv. of *Tinctura Thebaic.* at Bed-time. The Dose may be increased when there seems to be occasion for it.

I have never ventured on the *Bark* in any Stage of the Consumption, unless in a convalescent State, when the Lungs seemed to be free from Obstruction. [But this ought to be well considered, as the *Bark* is such an Enemy to Putrefaction, insomuch that it has been lately given with Success in the Sore Throat of the malignant Small-pox, in the putrid Sore Throat, and in Spotted Fevers themselves.] Then I have sometimes given the *Tinctura Corticis* with the *Elixir Vitrioli*, in order to brace the Fibres, and restore the Appetite. *Pringle.*

[Since

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[Since the printing of the former Edition, I have had ample Experience of the Virtues of the Bark in all the Stages of a Consumption.]

We must endeavour to diminish the Defluxion on the Lungs, by *Bleeding* and *gentle Purgings*, as well as *Pectorals*, accommodated to the various States of the Distemper, viz. by *thickening*, Medicines and *Attenuants*, and such as temperate the Hectic Fever, with Emulsions and Asses Milk, &c. and lastly, by healing the Ulcer with *Balsamics*, as *Opobalsamum*; the Dose is xx Drops upon Sugar; but this is not to be taken before due Evacuations have been first made.

After Evacuations, great Care must be taken, that the Cough be appeased, lest the Lungs should be weakened by the continual Agitation, which may be done by the following Mixture:

8. R. *Decoct. Pectoral.* ℞j. *Syr. à Meconio*, *Syr. Pectoral. an.* ʒij. *M. Cap. Cochlear.* v. *ter in die.*

This is a very useful Medicine to restore the Lungs to their pristine Vigour, unless too far decayed.

But the most sovereign Remedy of all is to get on Horseback every Day; and he that will put himself upon this Exercise for a Cure, need not be tied down to any strict Rules of Diet, nor be debarred from any Sort of Meat or Drink, since the whole Stress of the Matter depends wholly on the constant and continual Exercise of Riding: One thing the Physician, who is to direct about the Exercise, is to observe, that if the Patient is past the Time of his full Growth, he ought to insist longer upon this Exercise to such an one, than to those that are younger. *And in reality*, the Peruvian Bark does not with greater Certainty cure Intermitting Fevers, than Riding does a Consumption, provided the Patient takes care that his Sheets are well aired; and that the Journeys he takes are sufficiently long. Nor is Riding less beneficial in slight Disorders of this Kind, or when the Patient was only troubled with a frequent Cough and a Wasting, but when the Disease was so far advanced as to be attended with *Night Sweats* and a *Diarrhœa*. And though I have mentioned riding on Horseback as the chief Exercise, yet going Journeys in a Coach has often had wonderful Effects. Some of those who have been cured by this Method, have had a Swelling rising in their Necks, not unlike scrofulous Tumours. *Syd.*

[But as Multitudes are not able to comply with the Advice of Sydenham, and as Consumptions are so common, that they make up above a tenth Part of the Bills of Mortality in London, I shall lay down Morton's Method of Cure as succinctly as I can.]

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In the *first Stage of this Disease*, when the *Lungs, Trachea, and Glands*, throughout the *whole pulmonary Tube*, are stuffed with a pituitous Matter, separated from the Mass of Blood, and the Patient is afflicted with a *continual Cough*, especially in the Night-time, all proper Methods must be used to stop the Influx of this Catarrh, and to concoct the Humours already impacted.

First, Blood must be taken from the Arm, from six to ten Ounces, if the Patient is *plethoric*, or accustomed to Bleeding; this is to be repeated once, twice, or thrice, at proper Intervals, especially if the Flux of Serum is like a suffocating Catarrh, together with the copious Expectoration of a crude Phlegm; or where there is an asthmatic Difficulty of Breathing, a Pain in the Side, or the Signs of any Disposition to a Rheumatism, a Pleurisy, or a Peripneumony; or in case of a *Crapula*, or a Debauch with Wine or spirituous Liquors.

After *Bleeding*, (especially if the Disease proceeds from a *Crapula*, or there is a *Nausea*, or an Inclination to vomit,) it will be necessary to give an *Emetic* with *Oxymel of Squills*, [or *Ipecacuanha Wine*,] which will sometimes stop the Progress of an *incipient Phthisis*. The *Emetic*, if it agrees with the Patient, and there is Occasion for it, may be repeated every third or fourth Day, three or four Times. The best Time is towards the Evening; and after the Operation is over, an *Opiate* will be proper. The Forms are thus:

9. R. *Oxymel. Scillit. Ol. Amygd. dulc. an. ʒj. M.* Let the Patient take it in a large Draught of Posset-Drink, and repeat it twice or thrice in an Hour if there is Occasion.

10. R. *Aq. Alexeter. simp. ʒij. Aq. Cinnamom. simp. ʒls. Syr. è Mecon. ʒvi. M. F. Haustus.*

Or he may take six or ten Grains of *Storax Pills*.

It will also be convenient to carry down the Impurities by Stool, with a gentle *Cathartic*:

11. R. *Mann. select. Ol. Amygd. d. an. ʒjss. vel ʒij. solve in Ptisan. calid. bibat Eger mediam partem in lecto, reliquam post dimidiam Horam, è lecto surgendo.*

Let the *Opiate* likewise be given at Night as after the *Vomit*. Or an *Opiate* may be joined to a *Stomach Purge*, and be given at Bed-time.

12. R. *Gum. Aloes. ʒj. Pil. è Styrac. gr. viij. M. F. Pil. iv. deaurandæ quæ alternis Noctibus repetendæ sunt, Venæsectionibus debitis, prius celebratis.*

Opiates

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Opiates may be more freely used, as I have learnt by Experience, in the Beginning than in the Progress of this Disease, though they may be of some Service at all Times judiciously given.

Diaphoretics likewise should not be neglected, which carry the Serum through the cutaneous Pores; they should be without a Mixture of Opium, and should be given at Bed-time, after Bleeding, Purging, or Vomiting, thus,

13. R. *Theriac. Androm.* ʒss. *vel* ʒij. *Conserv. Ros. rub. antiq.* ʒss. *M. F. Bolus. Vel,*

14. R. *Electar. à Scard. Conserv. Lujul. an.* ʒj. *M. F. Bolus. Vel,*

15. R. *Pil. Saponac.* ʒss. *F. Pil. No. ij. deaurandæ, et horâ somni sumendæ. Vel,*

16. R. *Pil. à Styrac. gr. viij. Calc. Antimon. ʒj. Syr. Croc. q. s. M. F. Pil. iv. deaurandæ.*

Nor must those Remedies that soften, lubricate, thicken, and concoct the Phlegm, be omitted; such as *Sugar-candy, Barley-sugar, old Conserve of Roses, Juice of Liquorice, the white and black Troches of the London Dispensatory; fresh Butter in Water-gruel, sweet Oil, or Oil of Sweet Almonds, especially Linseed Oil cold drawn, of which the Patient may take a Spoonful every Hour, unless there is a Diarrhœa, or any other contra-indicating Symptom.* He may also eat Raisins, Figs, or use the Lohochs and Linctus prescribed for a Cough.

But if the Cough has been long and violent, and will not yield to the former Remedies, and there is Reason to fear that *Tubercles* are forming, we must have Recourse to *Balsamics*; for Instance, let the Patient take three of the following *Balsamic Pills* three Times a Day, whose Efficacy I have experienced for many Years, in a Spoonful of any proper Linctus, drinking after it a Draught of the *Pectoral Apozem*, pretty warm.

17. R. *Pulv. Millep. pp.* ʒiij. *Gum. Ammoniac. optim. depurat.* ʒj. *Flor. Benzoin. ʒij. vel ʒj. Extract. Croc. Bals. Peruv. an.* ʒss. *Bals. Sulph. Terebinthinat. vel anisat. q. s. M. F. Pil. mediocres, deaurand. vel Pulvere Glycyrrhizæ involvendæ.*

18. R. *Decoct. Pectoral. ʒiiss. Tinctur. Croc. Vinos. Syr. Pectoral. ʒij. M. F. Apozem. pectorale.*

If the febrile Heat contraindicates the Tincture of Saffron, it may be omitted.

The above Pills in the slow *Phthisis* (which indeed is the most frequent) of scorbutical and scrofulous Patients, where the Fe-

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ver, if any, is mild, and the Spittle glutinous, are not only excellent in the Beginning of the Disease, but also in its Progress.

The Air should be pure, far from Bogs and marshy Places, and the Smoke of Sea-coal. The Aliment light of Digestion, the Drink small, for spirituous Liquors should be avoided. The Patient should use Exercise, before Meals at least, and keep his Mind as free from Passions as possible.

The *second Stage* of this Disease may be reckoned from the *first Formation* of the *Tubercles*, till they begin to inflame and putrify, that is, while they remain in a *crude State*. This is known from the *Increase of the Hectic Fever*, from the *wasting and flaccid State of the musculous Flesh*, from the *Dryness of the Cough*, for the Spitting considerably abates, and from the *great Weight and Oppression* which is continually felt in the Breast.

In this Stage, *all Evacuations by Vomit, Stool, and Sweat, are pernicious*, for they increase the Fever, and accelerate the Consumption. Nor is *Bleeding* otherwise proper, than as it prevents an Inflammation, and then it must be used with a sparing Hand, when there are *pleuritic Pains*, or the Patient hath caught a *fresh Cold*.

The Patient must continue the Use of the *peccoral Medicines* before described, and especially the *balsamic Pills*, for, by this means I have cured many consumptive Persons, if the Fever was not great, and the Tubercles cold and crude, and consequently the Phthisis chronic.

Besides the alterative Medicines, taken in small Quantities, and at stated Times, Endeavours must be used to cool the febrile Heat of the Blood, and decrease the Quantity of the noxious Humours. The Diet must be such as will obtund the Acrimony of the Humours; as Partridges, Mountain-Birds, poached Eggs, Oysters, Calves-feet, and Jellies, and Soups made therefrom; also Craw-fish and other Shell-fish, and Broths made of their Flesh. Likewise *Spaw-waters*, Pectorals, Hydromel, a Milk Diet, Asses-milk, Milk-water, Millepedes, Snails, and the like; together with Issues, shaving the Head, and proper Plaisters.

If the *febrile Heat is mild*, from whence we may conjecture that the Swellings of the Lungs are crude, at least scrofulous and cold, or *steatomatous*, let the Patient be sent to drink, in the Summer-time, the *Chalybeate mineral Waters*; by this Means I have relieved Patients and kept them alive several Years, and their Flesh and Strength have returned. The Patient should only drink four, or at most six Pints in a Day, a little at a Time, for fear of distending the tender Vessels of the Lungs, and bringing on Spitting of Blood. This should be continued several Years,

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Years, and the Quantity may be lessened yearly. They should not, as others, purge before their Use; but if their Bodies are bound, they should use the *purging mineral Waters moderately*, with the Interval of three or four Days, and repeat them three or four Times.

If the *Waters do not pass by Urine*, take a Scruple of the Salt of Amber in the first Draught.

If they purge, take the Quantity of a Nutmeg of the following Electuary every Night, at Bed-time:

19. R. *Conserv. Ros. rub. antiq.* ℥j. *Pulv. è Succin. compos.* ℥iij. *Bol. ver. Sang. Dracon. an.* ℥ss. *Pil. è Styrac. gr.* xv. *Syr. Cydon. q. s. M. F. Electuarium.*

But if the *Hectic Heat* is remarkable, it will be better to cool the Blood with a Milk Diet than with Waters; and if Cow's Milk disagrees with the Patient's Stomach, then Ass's is to be drank in the Morning, that he may sleep after it; the Quantity from Half a Pint to a Pint. If it causes a *Diarrhœa*, let it be sweetened with Sugar of Roses, and milked upon a Sprig of Mint; or, if Occasion requires, and nothing else forbids, he may take a Dose of the *Electuary* just prescribed. This Milk should also be drank in its natural Warmth, not heated again. All other Medicines should be left off except Opiates and Astringents, if they are required. If the *Diarrhœa* cannot be stopped, or if stopped, a Vomiting ensues, or a Sickness with a Heaviness at the Stomach, or if there are Signs of a *Schirrus*, or great Obstructions of the Liver, which is common to scorbutical and hypochondriacal Persons, then Milk of all Kinds must be forborne; otherwise the Obstructions will increase, and the *Jaundice* and *Dropsy* will be produced.

Wherefore in these Cases it is better to *obtund the Acrimony of the Blood* by the copious Use of *Fish and tasteless Medicines*; but more especially by feeding on *Shell-fish of all Kinds*, not forgetting *Hurt's-horn Jellies*, Calves Feet, and Broths made of Things of the same Kind, with the Addition of a Capon or Chicken, and Shavings of Harts-horn or Ivory, of which Broth the Patient may take a large Draught twice or thrice in a Day. The testaceous Powders may be prescribed thus:

20. R. *Pulv. Millep. Ocul. Canc. ppt. Pulv. è Chel. Cancror. simp. Coral. rub. an.* ℥j. *Pulv. Succin. alb. M. Divide in chartulas ix. quarum unam sumat ter in Die è Cochlear. Fulep. sequent.*

21. R. *Aq. Alexeter. simp. ℥j. Aq. Cinnamom. simp. ℥ss. Marg. ppt. ℥ss. Sacchar. Chryst. ℥ij. M. F. Fulep.*

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In the third Stage of this Disease, little Hopes remain of a Cure, unless the Ulcers are small and benign. However, to promote it as much as possible,

22. R. Pulp. Conserv. Rosar. rub. antiq. Lujul. Balsam. Locatell. an. ℥j. M. F. Electarium, de quo cap. Quant. Nuc. Moschat. mane & vesperi. Likewise,

23. R. Syr. Balsam. ℥iij. Vini Crocei ℥ij. sumat. sæpius à Cochleari.

In a Spoonful of this Mixture the Patient may drop vi or viij Drops of *Opobalsamum* twice in a Day. In this State of the Disease, Opiates should be sparingly used, even tho' the Cough and Want of Rest require them, because they not seldom bring on sudden Death. Jellies and Broths are likewise to be directed; for, in short, there is now more Help to be expected from the Kitchen than the Apothecary's Shop.

The *Peripneumonic Fever* which attends this Disease, arises from the Inflammation of the Tubercles of the Lungs; and it is renewed as oft as a fresh Tubercle is inflamed, either spontaneously or from an Error in the Regimen. This Fever constantly continues during the Inflammation, and not seldom takes the Patient off suddenly. It is accompanied with *Shiverings* and *intense Heats* by Fits; with *Watching*, *Tossing*, a *Delirium*, *difficult Breathing* and *Expectoration*; violent wandering Pains of the Side, Breast, and Shoulders. When the Fever terminates in an Abscess, which is usually about the seventh Day, this inflammatory Fever is succeeded by a *putrid Quotidian*, or *Tertian* intermitting Fever, which is a certain Sign of a Purulence of the Tubercles, and cannot be cured before they are healed.

This inflammatory Fever requires a very slender Diet, lying in Bed, and an open Body, with *Absorbents*, *pectoral Apozems*, and *inciding and lubricating Linctus's*; as also *Diaphoretics*, with a small Proportion of *Opium*; not omitting *Epithems*, *Liniments*, and *anodyne Fomentations*. But above all, *timely* and plentiful Bleeding, as much as the Patient's Strength will permit, not then regarding the Consumption, however desperate.

Blood is to be taken away at proper Intervals, till the Crust, like melted Suet, entirely vanishes. Then give *Manna*, *Cassia*, *Cremor. Tartar*, *Tartar Vitriolate*, or the like. The Patient may be cooled with Emulsions of Nitre; the Drink must be Water: Wine, Strong-Beer, and Flesh must be omitted.

The Diet should be *Water Gruel*, *Ptisans* of *scalded Apples*, *Poffet Drink*, *stoned Raisins* and *Liquorice*; Table-Beer warmed with

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with a Toast, and the like. When the Fever is on the Decline, Chicken-Broth, Poached Eggs, &c.

If there is Occasion, the Body must be loosened with Clysters of Sugar'd Milk, with Chamomile Flowers, and repeated as Occasion requires; then take away ten Ounces of Blood on the Side affected, which should be boldly repeated every, or every other Day, according to the Urgency of the Symptoms.

In the mean while, and through the whole Course of the Disease, a Spoonful of the following *Linctus* will be proper, every third or fourth Hour, in $\mathfrak{Z}$ iv. of the following Pectoral Apozem, pretty warm:

24. R. *Ol. Amygd. dulc. recent. Syr. Pectoral. ℥ss. Sacc. cand. alb. ℥iss. M. exactissime. F. Linctus.*

If a glutinous Spittle, Shortness of Breath, and the Violence of the Disease require, and no Diarrhoea forbids it, instead of the *Ol. Amygd.* Linseed Oil cold drawn may be used; or two Ounces of the Linseed Oil may be taken by itself every fourth Hour; for it has both a lubricating and an anodyne Quality.

25. R. *Decoct. pectoral. ℥ss. Vin. Crocci, Syr. pectoral. an. ℥j. M. F. Apozem.* for the Use above mentioned.

To refresh the Spirits, and temperate the Effervescence of the Blood, give four Ounces of the following Julap:

26. R. *Aq. Alexeter. simp. ℥viij. Aq. Cinnamom. simp. & spirituos. an. ℥ij. Margarit. ppt. ℥iss. Sacch. albiss. ℥ij. M. F. Julep.*

At Bed-time the following anodyne and diaphoretic Bolus may be taken, with a Draught of the Pearl Julep, especially if the Body is too open:

27. R. *Theriac. Androm. ℥ss. Pulv. à Chel. Cancror. comp. ℥j. Syr. Caryophil. q. s. M. F. Bolus.*

After Bleeding apply *Blisters* to the Neck and Arms to prevent the Head and *Genus Nervosum* from being affected; and the *Cephalic Plaister* with *Euphorbium*, to the Soles of the Feet.

To take away the Pains of the Side and the Spasms of the thoracic Membranes, the following Fomentation and Liniment have been found beneficial:

28. R. *Rad. Petroselin. Fœnicul. Sem. Lin. Fœnugr. an. ℥ij. Flor. Chamæm. Melilot. an. Mij. M. & coque in Aq. Font. q. s.*

Put the strained Liquor in an Ox's Bladder till it is half full, and let it be applied hot to the Parts affected with Pain. When the Bladder is removed, lay on a hot Flannel dipt in the following Liniment:

29. R.

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29. R. Unguent. Dialth. ℥ss. Ol. Sambucin. Laterit. an. ℥iij.
M. F. Linimentum.

To temperate the farther Effervescence of the Blood, and the Heat of the Lungs, the following Powder may be prescribed:

30. R. Sal. Nitr. purissim. ℥iij. Sacch. cryst. alb. ℥ss. M. in Chartulas viij. quarum una dissolvatur in singulis Haustibus Cerevisiæ propinand.

As to the *intermitting putrid Fever*, though it is impossible to eradicate it quite without healing the Ulcers of the Lungs, yet I have often found the Bark very efficacious in suppressing the Paroxysms, at least for a Time, and the Patient's Life preserved several Years.

31. R. Cort. Peruv. subtilissime trit. ℥ss. Syr. Balsam. q. s. M. F. Bolus.

This is to be taken in the Morning early, and repeated every sixth Hour, for three Days together, drinking after it three or four Ounces of the following Apozem:

32. R. Cort. Peruv. pulverisat. ℥iij. Balf. Tolutan. ℥ij. Cochin. Croc. Ang. an. ʒj. Coq. in Decoct. pectoral. ℔j. ad ℥vi. Deinde cola & affunde Decocti præscript. ℔j. de novo; Operationem ita renovando ad tertiam vicem: Denuo Colaturas omnes misce, atque adde Vin. Malvatic. Syr. Balsam. an. ℥iv. M. F. Apozem.

Let these be repeated twice in a Month, or oftner, as Occasion shall require, and give Pectorals in the intermediate Times. If the Body is too laxative, to every Bolus taken at Night, may be added five Grains of the *Storax Pills*.

When in the *last Stage of this Disease*, there is a *Diarrhæa*, or *Dysentery*, with *gripping Pains*, the Patient must abstain from all Sorts of Malt Liquors, and use the *white Decoction*, and Milk boiled with Water, and likewise take, every fourth Hour, the Quantity of a Nutmeg of the astringent Electuary before prescribed, where the Mineral Waters are directed; or Laudanum may be given pretty freely alone, for no other Remedy will avail. Also a *Clyster of Chicken Broth* should be injected every Day. If this Symptom is not very urgent, then the Opiates should be ordered very seldom. But when they are given, Expectorants and lubricating Medicines should not be omitted.

[Or, instead of the above, the following Remedies may be given:

33. R.

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33. R. *Rhubarb. subtiliss. pulverisat. gr. xxv. Cinnam. acut. gr. v. Electar. e Scord. ʒss. Syr. e Mecon. q. s. M. F. Bolus, Hora somni sumendus.* The Night following,

34. R. *Aq. Alexeter. simp. Aq. Cinnamon. simp. an. ʒss. Aq. Cinnam. spir. ʒij. Tinct. Thebaic. gutt. xij. Syr. e Mecon. M.*

Repeat these Medicines in this alternate Manner for six Nights, if the Symptoms are not relieved. If the *Diarrhœa* grows more obstinate, give the following Clyster:

35. R. *Decoct. alb. fls. Electar. e Scord. ʒij. Theriac. Androm. ʒj. M.*

If, upon three Trials, this Clyster is found ineffectual, add two Grains of Opium, or forty Drops of the *Thebaic Tincture*.

A continual Coughing and Want of Sleep cannot be relieved without Opium, wherefore,

36. R. *Syr. Balsam. ʒij. Tinctur. Thebaic. gutt. xl. M. Capiat. Ager Cochleare unum singulis, vel alternis horis.*

Or an Ounce of *Diacodium* going to Bed; or Oil of Sweet Almonds may be mixed with *Diacodium* in equal Quantities.

In *colliquative Sweats*, *Pearl Juleps* may be freely given, to which may be added *Chalk*, *Coral*, *Dragon's Blood*, or other *Absorbents*. [But the *Peruvian Bark* for this Purpose, is much better than any other Medicine whatever.] The Patient should not be permitted to sleep too long, the Bed-cloaths should be light, and he should be removed to fine subtile Air.

Vomiting, when the Tragedy is almost concluded, can receive little or no Help from Medicine. *Morton.*

As soon as I am called to a consumptive Person, in the first Stage of the Disease, fatigued with a Cough, which afterwards is become moist, and exceeds the Bounds of a common *Catarrh*, accompanied with Difficulty of Breathing, Leanness, &c. I immediately examine the Liver, where I constantly find a conspicuous Hardness, and often a Pain. I afterwards examine if any general Remedies are indicated, in which Case I order the Patient to bleed and purge; I even repeat Bleeding when the Pain is violent, and if the Patient is young, heated with Wine or spirituous Liquors, to prevent the Inflammation of the Tubercles.

Then I apply a great Plaister of *Empl. Diabotanium* upon the Region of the Liver, with which Mercury revived from *Cinnabar* is incorporated: [*Emplastrum ex Ammoniaco cum Mercuria* will do altogether as well.] Every Night I order the Plaister to be taken off, and the Quantity of a Drachm of the Mercurial Ointment to be rubbed in at the Swelling, and then the
Plaister

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Plaster is put on again, which remains there Night and Day.

Internally, I give the following Powder :

37. R. *Chalyb. cum. Sul. ppt. Millep. Benzoin. Coral. rub. ppt. Ocul. Caner. an. ʒj. M. F. Pulvis, mane & vespere sumendus.*

Or Troches may be made of the same Ingredients, thus :

38. R. *Chalyb. cum. Sul. ppt. Millep. pul. Benzoin. Coral. rub. ppt. Ocul. Canor. ppt. an. ʒis. Cinnam. pulv. ʒiij. Sacchar. albissim. ʒss. M. & cum Mucilag. Gum. Tragacanth. F. Trochisci.*

Let each of the Troches weigh two Drachms, and let the Patient take one, Night and Morning.

After every Dose of the Troches or Powder, I order a Draught of a Ptisan made of Nettle-Roots, or of Whey well clarified, in which I mix two Ounces of the Juice of Water-Cresses, and as much of the Juice of Chervil ; or some Veal Broth in which Radishes of *Perigord*, Cresses, Brook-Lime, and Chervil have been boiled : Or an Infusion of Green Tea.

If the Patient's Circumstances will allow the Expence of Riding on Horseback, I oblige him to it Morning and Evening ; and to increase his Ride every Day, unless bad Weather, a cold Wind, great Rains, or Fogs, prevent it ; and then he must keep himself warm at home ; for he must take Care of catching Cold during the Course of these Remedies.

By a long Continuance of these Remedies, I have seen the Cough disappear, the slow Fever go off, the Obstruction of the Liver and Spitting diminish, the Discharge by Urine increase, Respiration become free and easy, a fresh lively Colour return, and the Patient recover his Flesh.

When the Consumption is arrived at the *second Stage*, that is, when the Patient spits *Pus* ; when he is tormented by a violent and continual Cough ; when his Fever exceeds a slow Fever, and is strong, and his Wasting is far gone, the Tubercles being come to Suppuration ; then Riding is absolutely necessary, and the Powder must be taken in the Morning, at Four in the Afternoon, and at Eight at Night : He must live upon Cow's Milk boiled and skimmed, and mixt with an equal Quantity of Tea. By these Means I have known several recover.

In the last Stage all Medicines are useless, and the Patient can expect nothing but to leave the World in a short Time. *Default.*

Of the NERVOUS CONSUMPTION.

A *Nervous Atrophy*, or *Phthisis*, is a Wasting of the Body, without any remarkable Fever, Cough, or Difficulty of Breathing; but is attended with Want of Appetite and a bad Digestion; whence the whole Body grows languid, and is continually falling away.

At first the Body is *oedematous*, and as it were stuffed with a *vapid Chyle*. The Face looks pale and bloated, and the Stomach loaths every thing but Liquids. The Patient is forced to keep his Bed sooner than the Progress of the Decay of his Flesh seems to require. The Colour of the Urine is uncertain, but it is generally very red and small in Quantity; sometimes it is pale and copious.

No considerable Fever is discernible either by the Pulse, Heat, or Thirst, though the Urine is ever so red.

The *Causes* of this Disease are generally, violent Passions of the Mind, a too frequent Use of spirituous Liquors, and unwholesome Air.

It is very difficult to cure, unless good Advice be had in Time. It generally terminates in a Dropsy, which carries the Patient off.

Stomachic and *nervous Remedies* are only to be depended upon, such as *Chalybeates*, *Antiscorbutics*, *Cephalics*, and Bitters. If the Body be costive, two Ounces of *Tinctura sacra* may be taken every fourth Evening, and from thirty to sixty Drops of *Elixir Aloes*, in a Glass of White Wine with Bitters, before Dinner. [The *Elixir of Vitriol* is excellent in this Case, twenty, thirty, or forty Drops is a Dose, in any convenient Vehicle, once, twice, or thrice a Day. Also about half an Ounce of the Chalybeate Wine, in some proper Liquid, in the Winter; in the Summer, the Spaw Waters: The usual Drink may likewise be made bitter with the *Vinum amarum*; but nothing strengthens the Stomach more than a Decoction of Wormwood.]

Sometimes the Patient may take eight or nine Drops of *Opobalsamum*, or Spirit of Hart's-horn, or of *Sal Ammoniac*, as friendly to the Nerves; nor must he forget Exercise and chearful Company, with other Diversions. Outwardly, the *Emplastrum Stomachicum* may be applied to the Navel. *Morton*.

Of the SYMPTOMATIC CONSUMPTION.

A Consumption arising from a *Gonorrhœa*, or the *Fluor Albus*, is known to be approaching in *Men*, from the *Hypochondriac Affection*, *Sadness*, *Pensiveness*, and *Decay of Strength*; in *Women*, from the *Hysteric Passion*, and the whole *Habit of Body* being *flabby*, *œdematous*, *squalid*, and *pale*, with great *Weariness* and *Loss of Strength*. When the Disease is confirmed, there is a *Thirst*, a *Hectic Disposition*, and a *wasting away of the Body*, till the Patient falls into a *Marasmus*, or becomes a mere *Skeleton*, generally without a *Cough*, or any Sign of a Consumption of the *Lungs*. If it be recent, the *Running* must be cautiously stopt; the Patient must use *Exercise* and *Frictions*, and abstain from the free Use of *Wine* and *spirituous Liquors*. But if there is the least Degree of a *Hectic Heat*, *Recourse* must immediately be had to a *Milk-Diet* and *Spaw Water*.

A Consumption from *Abscesses* and *Ulcers*, is known by a *Feverish* and *Hectic Heat*, with *Thirst*, *Decay of Strength*, *Want of Appetite*, a *Nausea*, a *wasting of the Body*, and at length *Want of Sleep*, a *Delirium*, and other Symptoms of a *Fever*, till the Patient being quite worn away, goes off the Stage without any Sign of a Defect in the *Lungs*. The *Ulcer* must be seasonably healed, with the Use of *Internals* as well as *Externals*: Six or eight Ounces of the following *Lime-Water* should be taken three Times a Day:

1. R. *Sars. opt. incis. ℥vi. Uvar. Corinth. ℥ss. post debitam Infusionem coq. in Aq. Fontan. ℥xij. ad vi. deinde F. Colatura. In hoc decocto extingue Calcis vivæ ℥ss. Decantetur & per Residentiam depuretur ad Usam.*

Unless the Patient is already *Hectic*, *Mercurial Cathartics* may be given, to hasten the Cure of the *Ulcer*: Thus,

2. R. *Diagryd. sulphurat. vel Resin. Jalap. gr. xvi. Mercur. dulc. sexies sublimat. gr. vi. Syr. è Spin. Gervin. q. s. M. F. Bolus.*

Internal balsamic Remedies are also useful; for Instance, the Patient may take *Lacatellus's Balsam* and *Conserve of Roses*, of each half a *Drachm*, with three or four Drops of *Balsam of Peru*, or he may take a *Spoonful* of *Syrup of Balsam*, two or three Times a Day; or half a *Drachm* of *Balsam of Tolu*, reduced into small Pills, at the medicinal Hours, drinking the *Decoction of Sarsaparilla* after them. The greatest Care should be taken after the Cure of the *Ulcer*, lest a *Pulmonary Consumption* should

should follow. Wherefore make *Issues*, continue the Use of *Balsamics*, a *Milk-Diet*, and *Mineral Waters*.

A Consumption from giving Suck, is first known by a *Want of Appetite*, which is followed by a *Decay of Strength*, and then by *Hysteric Disorders*. When a *Marasmus* comes on, it is incurable.

Let the Nurse wean the Child as soon as her Appetite begins to fail, and use a Diet that yields good Nourishment; also Exercise, and taking the Air, will be beneficial. If a Hectic Disposition requires it, a Milk-Diet and Chalybeate Waters must be recommended.

[A Consumption proceeding from a Diarrhœa, a Dysentery, a Diabetes, a Salivation, a Dropsy, and profuse Sweats, have nothing peculiar in the Manner of their Cure, but what relates to the primary Diseases, and a Phthisis in general.]

A Scrophulous Consumption is known by the glandulous Tumours in the outward Part of the Body, and from the frequent Returns of sore Eyes, and the Itch. There are some who have scrophulous Tubercles of the Lungs, not apt to be inflamed; and who live in a consumptive Condition from their Childhood to old Age, and yet have a constant Cough, Day and Night, and at all Seasons of the Year, with Heaviness in the Breast, and Difficulty of Breathing, but without any Fever, and yet upon taking Cold, to which they are obnoxious, they expectorate Plenty of Phlegm or serous Matter. These may be cured by good Air, in an open, sunny Place, but frequently changed, together with a long Use of *Balsamics*, *Mercurials*, *Millepedes*, *Chalybeates*, especially *Mineral Waters*, and other antiscrophulous Remedies. In this Case a *Milk-Diet*, *Pectorals*, and *Opiates*, are of little Service, unless when a Cold has been newly caught. [A Decoction of *Colt's Foot* is good in the worst of these Cases, says Fuller.]

But when the Tubercles are apt to be inflamed and exulcerate, it must be treated as a *Pulmonary Consumption*. Bleeding at the first, to prevent the Inflammation, is necessary; the pulmonary Medicines must be mixed with *Millepedes* and other things proper for the *King's Evil*. Gums and Balsams are useful, but especially our *Balsamic Pills* directed in the *Pulmonary Consumption*, by a long Use of which I have cured many. When an Abscess is formed, Specifics are of no Use; therefore the Treatment has nothing peculiar.

When the Tubercles are of a middle Nature, the Patient may live several Years in a valetudinary State, but is very subject to putrid Fevers, from Excess; or taking Cold; which does the Patient more hurt in a Week, than otherwise he would sustain

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in a Year. As soon as the Fever appears, moderate Bleeding is necessary, though he be emaciated, and *antiscrofulous Medicines* must be blended with *Antifebriles*.

In the *Summer*, unless there is an Obstruction of the Liver, attended with a Dropsy, Chalybeate Waters must be drank a considerable Time: In *Winter*, our *Balsamic Pills* must be taken, as also Gums, and other *Balsamics*: In the *Spring*, a Diet-Drink with *Millepedes* and *antiscrofulous* and *pectoral Ingredients*. *Opiates* should not be given but in Case of Necessity. But the most efficacious Medicine of all is the *Peruvian Bark*, given to Half a Drachm Morning and Evening, as I have found by Experience. And the Reason of this is now evident, since the Virtues of it have been discovered in other scrofulous Disorders.

A *Scorbutic Consumption* may be expected to be coming on, when there is a frequent Eruption of Pimples, like the *Herpes miliaris*, dispersed all over the Skin, and a perpetual hawking up of salt Phlegm, especially in the Morning, often attended with Ulcers and an Erosion of the Gums.

The Cure of this Disease differs from the general Method in the following Particulars.

Opiates are always noxious, unless after taking a fresh Cold, to mitigate the Symptoms; because it renders the Phlegm more glutinous.

The *Pectoral Medicines* should be such as incide, cleanse, and promote Expectoration; as *Honey*, *Hydromel*, *Oxymel*, *Gums*, and *Balsams*, but more especially our *Balsamic Pills*, whose Efficacy I have often experienced.

The *Pectorals* should be blended with *Antiscorbutics*, such as *Water-Cresses*, *Brook-Lime*, *Tops of Fir*, *Ground-Ivy*, *Roots of sharp-pointed Dock*, and *Male Piony*; which should be put in a Bag, and suspended in the Beer or Ale, for common Drink.

Steel is useful in the Cure of this Disease, unless too far advanced. If the *Scurvy* is of the *acid* or *cold Kind*, a Grain or two of *Salt of Steel* may be added to each Dose of the *Balsamic Pills*; if of the *salt Kind*, *Mynsicht's Extract of Steel* is preferable. But in all Kinds the *Chalybeate Mineral Waters* are better than any artificial Preparation in the Summer-time, and should be drank every Year.

If the Body is bound, the purging Mineral Waters are convenient, or a Scruple of *Gum of Aloes*, with eight Grains of *Storax Pills*, may be taken once a Month, at Bed-time.

A *Milk-Diet* is rather hurtful than beneficial.

Smoking Tobacco should be forborne.

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An *Asthmatic Consumption* is principally known from others, by an almost constant Wheezing, and extreme Difficulty of Breathing. Very old Persons, who are not carried off by an acute Disease, generally die of this, but not without a preceding Cough, Shortness of Breath, Decay of Flesh, and a Disposition inclinable to a Hectic.

A *Milk-Diet* and *Opiates* are hurtful in this Case; even a Grain of *Laudanum* would endanger the Patient's Life. A fine, thin, wholesome Air is of the greatest Service.

Inciding Pectorals are good; *Incrassants* bad; *Honey*, *Hydromel*, *Balsams*, *Gums*, *Millepedes*, are useful; but more especially our *Balsamic Pills*. When this Disease proceeds from a *Convulsive Asthma*, *Hart's-horn Drops* will be beneficial.

In a violent *Asthmatic Fit*, Bleeding is necessary as far as the Patient's Strength will bear, though he be never so much emaciated; as also some Spoonfuls of equal Parts of *Oxymel Scillis*. & *Aq. Cinnam. Spir.*

A Consumption proceeding from *Hypochondriac* and *Hysterical Affections* is distinguished from others, by an Oppression of the Breast, by unusual Sadness or Melancholy, by frequent *Hysterical Fits*, Faintings, and other nervous Symptoms.

Besides the general Method of Cure, *Antihysterics* must be given, such as Spirit of *Hartshorn*, Spirit of *Sal Ammoniac*, *Tincture of Castor*, and more especially *Chalybeate Mineral Waters*; for without *Chalybeates*, all other Medicines are vain; but they must be given before, not after, an Ulcer of the Lungs appears. A *Milk-Diet* and Purging are very improper, unless the latter is exceeding mild. *Gentle Emetics*, proportionable to the Patient's Strength, relieve to a Miracle in the Beginning of the Disease.

Opiates are necessary to appease the *Spasms* of the Stomach, Intestines, and other Parts, and to procure Sleep.

A Consumption from the *Lues Venerea* is of the *asthmatic Kind*, and is attended with a viscid Phlegm, and Difficulty of Breathing, more than a troublesome Cough; and is therefore slow in its Progress.

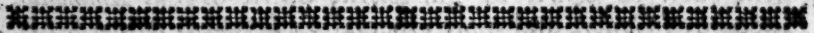
In the Cure, *Antivenereals* must be mixed with *Pectorals*; or a Salivation, if the Patient's Strength will admit, may be proper; otherwise there is nothing to be hoped for but from a Milk Diet, the Decoction of *Sarsaparilla*, or *Balsamic Pills*; and gentle Purges with *Calomel* at proper Intervals. [Nothing can be depended upon so much in this Disease, as *Sarsaparilla*, especially if the Cure has been attempted with *Mercurials* before, which is almost always the Case. It will be best made in the following Manner: Boil three Ounces of *Sarsaparilla*, and

half an Ounce of *Liquorice*, in three Quarts of Water, till there remains one of the strained Liquor. This Quantity must be taken every Day, either warm or cold, and must be made fresh every other Day. The *Sarsaparilla* must be got as fresh and as sound as possible. It must be continued forty Days, or longer.]

A *Consumption* proceeding from the *Green-Sickness*, and a Suppression of the *Menses*, is particularly attended with terrible *Prickings*, and violent *Pains* in the Side. This is the common Source of *Female Consumptions*.

In the Beginning of the *Green-Sickness*, it will be proper to purge with *Tinctura Sacra*, and give *Chalybeates* to promote the menstrual Flux. But if the *Tabes* is actually begun, these Medicines will do more Harm than Good: Therefore the Patient must be treated in the common Method, and the Pains in the Side must be appeased with Liniments and hot Fomentations; and when she is recovered, her *Menses* will return spontaneously. *Morton*.

There are other *Symptomatic Consumptions*, but as their Cure depends on that of the original Disease, they need not be treated of in particular.



Of an EMPYEMA.

AN *Empyema* is a Collection of purulent Matter in the Cavity of the *Thorax*, between the *Lungs* and the *Pleura*, which always supposes the breaking of a *Vomica* into the said Cavity.

Such are the *Vomica*, or *Abscesses* of the *Lungs*, proceeding from Inflammations, from spitting of Blood, from a thick Matter which cannot be expectorated. Of the *Pleura*, from an Inflammation, from a Wound therein, healed outwardly but open inwardly; from a Bruise, or a concealed Rupture of it, turning to Pus. Of the *Diaphragm*, when, after an Inflammation, it suppurates, and breaks on its upper Part. Also of the *Mediastinum* and *Pericardium* affected in the like Manner.

An *Empyema* may be foreseen from an Inflammation of any of the above-mentioned Parts, which is not terminated and resolved by Concoction, Revulsion, a Crisis or Medicines, but is followed by Shiverings, a *Febricula* encreasing at Night, a wandering Heat, a Sense of Heaviness in the Part that was pained, a Difficulty of Breathing, a Want of Appetite, and an unusual Thirst.

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An *actual Empyema* is known from twenty Days being elapsed since the Inflammation began, without Expectoration of the Matter, from the Signs of a *Vomica* in the five above-mentioned Parts disappearing; from a new Pain, Cough, Difficulty of Breathing, and Spitting arising, and afterwards going off. From a dry Cough, a Weight on the Diaphragm, not being able to lie but on one Side, a Noise made by the Fluctuation of the *Pus*, upon moving the Body, from a slow Fever, a Flushing in the Cheeks, hollow Eyes, Heat in the Ends of the Fingers, Crookedness of the Nails, and a Swelling of the *Abdomen*.

The Consequences of this Disease are, a continual Accumulation of *Pus* from the Ulcer not yet healed. The Matter increasing in its Acrimony, Putrefaction, rank Smell, and Thinness, by being shut up in a hot, moist Place. An Impediment in raising the Diaphragm and extending the Lungs. A Shortness and Difficulty of Breathing, and not easily performed unless in an erect Posture; a Dread of Suffocation when laid down; an Inability of lying, but on the affected Side; a constant dry Cough, with Anxiety; a Maceration and Corrosion of the *Lungs*, *Pleura*, *Diaphragm*, *Pericardium*, and even of the *Heart* itself, converting them gradually into filthy Corruption; whence a Hectic Fever, quick, small Pulse, constant Redness of the Cheeks, Loss of Appetite, perpetual Thirst, extreme Weakness, and Fainting Fits. Hence all the Fluids become unfit for Nutrition, Circulation, or any other Office: The Consequence of which is, a Wasting of the whole Body, a Putrefaction of the Fluids, which may be discharged through the corroded Lungs, or carried downwards by a fatal, sanious *Diarrhoea*; Night Sweats, Pustules in the Face, crooked Nails, a shining Yellowness of the Skin, and a Hippocratic Countenance.

The *Cure* of this Disease is different, according to its different Cause and State.

When a *Vomica* or Abscess is known to be formed in any of the Parts before mentioned, all Endeavours are to be used, that it may be speedily broken and determined to the outward Parts, which must be attempted by actual or potential Cauteries, or by Incision and proper Motion.

When the *Vomica* is actually broke, then it is to be evacuated by the *Mouth*, if Nature seems to encourage it; or by *Urine*, if there appear any Signs in it of passing that Way; or by an *Aperture of the Thorax* by a proper Instrument, on the Side affected, between the fifth and sixth Ribs, or the fourth and fifth reckoning from below, letting the *Pus* out slowly,

and at several Times, and then cleansing the Cavity by Injections of Decoctions with Honey, which done, the Wound is to be healed, at the same time giving Plenty of vulnerary Decoctions inwardly, of such Things as deterge and resist Putrefaction.

Sharpe has no good Opinion of this Operation, for he says he has opened several Persons who have died of a Consumption of the Lungs from an Abscess, which had consumed a great Part of the Lungs, and he does not remember to have found any Pus lodged in the Thorax. Besides, continues he, it is evident, that many who die consumptive, die of the Discharge they spit up from the Lungs, and therefore we ought not to undertake any Operation which promises so little Success. There may, I own, be Abscesses formed between the Lungs and the *Mediastinum*, which may fall into the Cavity of the Thorax; but then if the Pus is small in Quantity, it may be absorbed by the Lungs themselves; and if there is much, the Operation will be of little Service. Besides, these Cases are very rare, and the Symptoms of Pus being fallen upon the Diaphragm are very equivocal, and therefore I think the Operation should be omitted, though the *Empyema* is supposed actually to exist.

In general, all Inflammations of the Lungs or Pleura are followed by an Adhesion of these Parts, which allow Nature to make a Passage externally: And it is common in Abscesses of the Pleura and intercostal Muscles to find them break outwardly, nor is it uncommon even in the Lungs. Therefore when there is an Adhesion, no other Operation is necessary than to open the Tumour with a Lancet, when the Pus is formed; and if the Suppuration is so plentiful as not to admit the healing of the outward Ulcer it may be kept open with a hollow Tent. Thus many Persons have lived a long while with a running Fistula.

If the Pus is white, smooth, equal, not fetid, nor discolouring the Probe; if the Patient is without Fever, Thirst, or a Diarrhoea, if his Appetite and Digestion are good, and he is well in other Respects, the Air should be hindered as much as possible from entering the Thorax, and then the Patient may recover.

But if it is dark coloured, ichorous, mixed with Fibres, stinking, bloody, changing the Colour of the Probe like Fire, and bursting out all at once, there is the greatest Danger of Death, or a Consumption.

If the *Mediastinum* is eaten through, upon opening the Thorax, a sudden Suffocation often ensues.

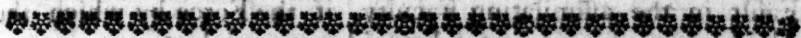
If the *Empyema* is of long standing, the Strength is decayed, the Hair falls off, and there is a colliquative Diarrhoea, with a
wasting

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Of the Cachexy, or ill Habit of Body.

wasting of the Body, the Operation generally hastens the Death of the Patient.

Hoffman gives an Instance of a Person, who, after a *Peripneumony*, fell into an *Empyema*, and was cured by taking Milk boiled with Sugar of *Roses*. The Quantity was three Pints a Day. As also *Balsamic Pills*, made of *Flowers of Sulphur*, Oil of *Sweet Almonds*, *Sperma Ceti*, *Venice Turpentine*, *Saffron*, and Oil of *Aniseed*. Likewise a Powder made of *Crabs-Eyes*, *Sperma Ceti*, *Sugar*, *Myrrh*, *Liquorice-Powder*, and *Bole Armoniac*.



Of the CACHEXY, or ill Habit of Body.

BY a *Cachexy* is generally understood that Disposition of Body, which depraves the Nourishment thereof throughout its whole Habit.

The Causes of which are, any bad State of the nutritious Juices, or a Fault in the Vessels designed for its Reception, or a Defect of the assimilating Faculty.

The nutritious Juices may be depraved, by the Nature of the Aliments which cannot be sufficiently changed by the digestive and assimilating Faculties: such are the farinaceous and leguminous Foods, and things that are gross, fibrous, fat, acrid, aqueous, and viscid. Things in their own Nature indigestible, as *Turf*, *Chalk*, *Lime*, *Coal*, *Sand*, &c. By a Defect of bodily Motion, from *Rest*, *Laziness*, or too much Sleep. By too great a Weakness or Rigidity of the Organs of Digestion; or by a Fault in the Fluids themselves not to be easily rectified. Many things may contribute to these Defects, such as all profuse Evacuations and Secretions, of what Kind soever; a Vomiting, Looseness, Bloody Flux, Hemorrhages, Schirrous Disorders of any of the Viscera, a Retention of Things which ought to be evacuated.

Hence it is evident, that these Causes act, by diminishing the Solids, or stuffing them with Humours which are apt to stagnate; whence there proceed two remarkable Effects of this Disorder: viz. a *Consumption*, or a *Leucoplegmatia*, and an *anasarcous Dropsy*.

Many Disorders arise from hence, according to the various Colour, Quantity, Tenacity, Acrimony, or Fluidity of the distempered Humour; as a white, pale, yellow, tawney, red, green, livid, black Colour of the Skin, a Heaviness, a Swelling under

the Eyes, and of the most tender Parts; and those most remote from the Heart become bloated and cedematous; there is a Palpitation of the Heart and Arteries, which increases upon the least Motion; the Urine is crude and thin; the spontaneous Sweats are evidently aqueous; at last the Body is either reduced to a Skeleton, or it is affected with a *Leucophlegmatia*, and a Dropsy.

An universal Fault of the Vessels designed to receive the nutritious Fluids, can hardly be supposed; however, they may be too contractile or lax, and the Disorders that proceed from thence may be looked upon as the Causes of this Disease.

The Nourishment of the whole Body may be hindered, by a Fault in the assimilating Faculty, if the Force by which the Fluids are circulated, is too languid or too violent.

From what has been said, the diagnostic Signs are evident; and the Prognostics may be gathered from the Consideration of the Cause, Duration, the Effects and Degree of the Disease.

The Cure sometimes requires a Correction of the too acid Fluid, and a moderate Inspissation thereof: When it is tenacious and stagnating, it must be dissolved and rendered fluxile. But the Medicines must be varied according to the various Causes from whence these two Faults arise.

The greatest Care must be taken, that the Aliment be most like the healthy Fluids, and easy of Digestion, contrary to the Cause of the Disease, and agreeable to the Palate of the Patient.

Digestion should be promoted by Aromatics, Wine, and Air. The Organs of Digestion should be disposed to perform their Office by mild Digestives, then by Vomits and Purges, and by Medicines which corroborate and promote Digestion.

When by the Use of these the Body is loosened, and the morbid Matter attenuated, then you must proceed to Attenuants, Diuretics, and Sudorifics. Last of all, Chalybeates, alkaline, and saponaceous Medicines must be used, with Walking, Riding, Frictions, and Baths.

When a *Consumption* and a *cachectic Tabes* arise from too great an Acrimony, the Nature of the Acrimony must be enquired into, by endeavouring to find out the Cause of the Cachexy, and the Constitution of the Patient; by observing the Symptoms and the Excretions. These being known, they are to be corrected by their Contraries. *Boerhaave.*

[To attenuate the pituitous or viscid State of the Blood and Humours, Salt of Wormwood, Tartar Vitriolate, *Nitrum stibiatum*, *Sal diureticus* *, *Spiritus Mindereri*, are efficacious, or the following Powder:

* The old Name for *Sal Diureticus* is *Terra Foliata Tartari*.

I. R.

1. R. *Sal. Diuret. Tartar. Vitriolat. Nitr. puriss. Sal. Ammon. an. ʒj. Ocul. Cancror. ppt. ʒij. M. F. Pulvis de quo ʒss. singulis Diebus mane & circa quartam pomeridianam cum sufficiente Vehiculo sumenda est.*]

For the same Purpose may be used, *Gum Ammoniac* and *Galbanum*, as also Preparations of *Myrrh*, *Aloes*, and *Amber*. Likewise bitter Herbs, as *Wormwood*, *Carduus Benedictus*, the lesser *Centaury*, *Marsh Trefoil*, *Rosemary*, *Sage*, *Maidenhair*, and the antiscorbutic Herbs; add to these, the Decoction of the Wood of *Guaiacum*, *Sassafras*, *Juniper*, *yellow Sanders*, and *Spices* of all Kinds. *Heister*.

Saponaceous Remedies should precede all the rest, for they not only cleanse the Body, but have wonderful Efficacy in dissolving glutinous Humours. *Huxham*.

Of the SCURVY.

THIS Distemper chiefly affects the Inhabitants of cold northern Countries, and especially those who live in marshy, low, fat, and moist Soils, near stagnating Water, whether fresh or salt. Those who live idle, sedentary Lives, are most subject, chiefly in the Winter, to the Attacks of this Disease; as also those who feed upon salted and smoak-dried Flesh or Fish, Sea-Biscuit, stinking Water, unfermented, farinaceous Vegetables; Pease, Beans, sharp Salt, old Cheese; likewise those who are subject to melancholic, maniacal, hysteric, or hypochondriacal Disorders; or those who have taken large Quantities of the *Peruvian Bark*. *Boerhaave*. [This is a great Mistake.]

It is known by *spontaneous Weariness*, *Heaviness of the Body*, *Difficulty of Breathing*, especially after bodily Motion; *Rottiness of the Gums*, a *stinking Breath*, *frequent Bleeding of the Nose*, *Difficulty of Walking*; sometimes a *Swelling*, sometimes a *falling away of the Legs*, in which there are always *livid, plumbeous, yellow, or violet coloured Spots*; the *Colour of the Face* is generally of a *pale Tawny*. *Sydenham*.

The *first State* of this Disease begins with unusual *Laziness*, *spontaneous Weariness*; the Patient loves to be in a sitting or lying Posture; there is a Pain in all the Muscles, as if he was over-tired, especially of the Legs and Loins; when he wakes in the Morning, all his Joints and Muscles seem to be tired and bruised.

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In the *second State*, the Gums swell, grow painful, hot, and itching, and bleed upon the least Pressure; the Roots of the Teeth become bare and loose; he feels Pains in all the external and internal Parts of the Body, imitating Distempers proper to the various Parts.

In the *third State*, the Gums at length grow putrid, with a cadaverous Smell; when they are inflamed, Blood distils from them, and a Gangrene ensues; the loose Teeth by degrees grow yellow, black, and rotten; the sublingual Veins become varicous, and like Rings; there are often *fatal Hæmorrhages*, which break out from the *external Skin*, without any Appearance of a Wound, from the *Lips, Gums, Mouth, Nose, Lungs, Stomach, Liver, Spleen, Pancreas, Intestines, Womb, Kidneys, &c.* Obstinate Ulcers arise, of the very worst Kind, which no Applications will cure, and which are apt to turn to a Gangrene; they break out in all Parts, but especially the Legs, and are attended with a Stench. There is a Kind of an Itch and dry Scabs, with a dry and mild Leprosy. The Blood drawn from a Vein is black, grumous, thick, and yet wants its due Consistence in the fibrous Part; the *Serum* is salt, sharp, and abounding with a yellowish green *Mucus* on its Surface: There are gnawing, rending Pains, quickly shifting from Place to Place, which grow more violent in the Night, affecting all the Joints, Bones, and *Viscera*.

In the *fourth State*, there are Fevers of various Kinds, which bring on an Atrophy; sometimes Diarrhoeas, Dysenteries, or violent Stranguries; as also Faintings and mortal Anxieties, a Dropsy, Consumption, Convulsions, Trembling, a Palsy, Contractions, black Spots, voiding of Blood upwards and downwards, a Putrefaction and Consumption of the Liver, Spleen, Pancreas, Mesentery. Now the Contagion spreads very quick. *Baerhaave.*

The first Sign of the Approach of this Disease is commonly a Change of Colour in the Face, which becomes pale or yellowish, and bloated, with a Listlessness, and an Aversion to Exercise. The Caruncles of the Eyes appear of a greenish Cast, and yet in other Respects the Patient seems in perfect Health. However, the Change of Colour in the Face does not always precede the other Symptoms, though it constantly attends them. Then a universal Lassitude supervenes, and a Stiffness and Feebleness of the Knees, with a Difficulty of Breathing on the least Motion. Soon after this there is an Itching of the Gums, which swell and are apt to bleed on the least Friction. Then they become livid, soft, and spongy, and afterwards extremely putrid and fungous. This Rottenness of the Gums is an inseparable

separable Sign of this Disease. These are not only subject to bleed, but there are Hæmorrhages from different Parts of the Body.

The Skin is dry throughout the whole Course of this Disease, except towards the last, and in many it is rough. In some it appears like the Skin of a Goose; but it is most frequently smooth and shining. It is stained with blue, purple, livid, or black Spots, some of which are small, and others of a Hand's Breadth, when the Disease is advanced. They are chiefly on the Legs and Thighs, but sometimes on the Arms and Trunk of the Body. Some have a Swelling of the Ancles in the Evening, which disappears in the Morning. In a little Time it advances gradually up the Leg, and the whole Member becomes cedematous. Hurts, Bruises, Wounds healed up, and fractured Parts, always become scorbutic first. Old Ulcers will emit a thin fetid Sanies, mixed with Blood, and at length coagulated Gore will lie on the Surface of the Sore like a Cake. As the Disease increases, they shoot out a soft, bloody Fungus, resembling Bullock's Liver, which sometimes will rise to a monstrous Size in a Night's Time. The slightest Wounds and Bruises of scorbutic Persons degenerate into such Ulcers, and are easily distinguished from all others, by being putrid, bloody, and fungous. Other Symptoms supervene, but these are sufficient to distinguish the Scurvy from all other Diseases.

To prevent the Scurvy at Land, it will be proper to choose a warm, dry, pure Air, with a Diet of easy Digestion, consisting chiefly of a due Mixture of animal and vegetable Substances; for those are most liable to it who live in marshy, wet Soils, and in Places subject to great Rains and Fogs, or in damp, low Apartments, unless they keep constant Fires, and their chief Food be Flesh-Broths, with Plenty of fresh Greens or Vegetables, and well-baked Bread made of Wheat-Flour; as also a chearful Glass of some good wholesome fermented Liquor. Cleanliness, entertaining Amusements, and moderate Exercise, will also be good Preservatives in these Cases. In Garrisons, the Soldiers should be kept as dry, clean, and warm as possible, and their Provisions should be as wholesome as can be procured, with Plenty of good Vegetables, particularly Sallads of Garden-Cresses.

The best Method of preventing the Scurvy at Sea, will appear from the Effects which Dr. *Lind* has observed several Medicines have had, especially those which have been greatly recommended as Preservatives. On the 20th of May, 1747, being on board the *Salisbury*, at Sea, he took twelve scorbu-

tic

tic Patients under his Care. They had putrid Gums, Spots, and Lassitude, with Weakness of their Knees. They had a proper Apartment in the Fore-hold; their Diet was Water-Gruel, sweetened, in a Morning, sometimes Mutton-Broth for Dinner, sometimes light Puddings, boiled Biscuit with Sugar, &c. and for Supper, Barley and Raisins, Rice and Currants, Sago and Wine, and the like. Two of these were ordered each a Quart of Cyder in a Day. Two others twenty-five Drops of *Elixir Vitrioli* three Times a Day, upon an empty Stomach, using a Gargle acidulated with the same. Two others took two Spoonfuls of Vinegar three Times a Day; having their Gruels, other Food, and Gargles, well acidulated with it. Two of the worst Patients, with the Tendons of the Ham rigid, were put under a Course of Sea-Water, and drank about a Pint every Day, more or less, according to its Operation, which was intended to be a gentle Physic. Two others had each two Oranges and one Lemon given them every Day, which they eat with Greediness upon an empty Stomach, at different Times. This Course was continued but six Days, because no more Fruit could be allowed. The two remaining Patients took the Bigness of a Nutmeg, three Times a Day, of an Electuary made of Garlic, Mustard-Seed, Balsam of *Peru*, and Gum-Myrrh; using for common Drink Barley-water well acidulated with Tamarinds; by a Decoction of which, and Cream, they were gently purged three or four Times during the Course.

The Oranges and Lemons had the best Effect; for one of those who had taken them, was, at the End of six Days, fit for Duty; and he took nothing more but a Gargle of the *Elixir of Vitriol* for his Gums, which were not quite sound, and so recovered his Health entirely. The other, being more recovered than any of the other Patients, was appointed to look after them. Next to the Oranges I judged the Cyder had the best Effects, though it was not very good, being pricked; for those who drank it were in a fairer Way of Recovery at the End of the Fortnight, the Time allowed for making the Experiments, than any of the rest. *Elixir of Vitriol* did no good unless as a Gargle, nor yet any of the rest of the Medicines. Oranges, in my Opinion, are preferable to Lemons, for by these the Lord *Anson's* People were so speedily and surprizingly recovered at the Island of *Tinian*. Besides, Mr. *Murray* affirms, from Experience, that Oranges and Lemons, when properly and sufficiently used, are an infallible Cure in every Stage and Species of this Disease, if there is any Degree of natural Strength left, and where a
Diarrhœa,

Diarrhoea, Lientery, or Dysentery are not joined to the other Symptoms. He observes farther, that at the Island of *St. Thomas*, fifty Men belonging to the *Canterbury*, and seven to the *Norwich*, who were in all the different Stages of this Distemper, were cured in a little more than twelve Days.

Some, who are fond of Theory, will be apt to say, these are Acids, and then Tamarinds, Vinegar, Spirit of Salt, Elixir of Vitriol, and others of the same Tribe, will do as well; but Experience plainly shews the contrary; and though Acids agree in certain Properties, they differ widely in others. Besides, if these Fruits have been given without Success, it is because Legions of Diseases have been mistaken for the Scurvy; whereas, in the real genuine Scurvy, they have been never known to fail; not to mention that the Virtues of Oranges and Lemons, in this Case, have stood the Test of near two hundred Years. However, we must not forget to observe, that fresh Vegetables of all Kinds have proved a very great Relief to scorbutic Patients, when set on Shore.

But as Oranges and Lemons are apt to spoil, I shall shew how to bring their Juices, by a very easy Method, into small Quantities, without Prejudice to their Virtues. Let the Juice of these Fruits be well cleared from the Pulp, and depurated by standing some Time; after which it may be poured off from the gross Sediment. Let it then be poured into any clean open Vessel of China or Stone Ware, which should be wider at the Top than at the Bottom, that it may evaporate more readily. But a China Basin or Punch-Bowl is most proper, on account of the Form. Put this into a Pan of Water over a clear Fire; let the Water come almost to boil, and continue nearly in that State, with the Bowl full of Juice in the Middle of it, till the Juice is found of the Consistence of a thick Syrup when cold. The slower the Evaporation of the Juice is, the better; that is, it ought to continue twelve or fourteen Hours over the Fire: When it is cold, it is to be corked up in a Bottle for Use. Two Dozen of good Oranges, weighing five Pounds four Ounces, will yield one Pound nine Ounces and a Half of depurated Juice; and when evaporated, there will remain five Ounces of Extract, which in Bulk will be equal to less than three Ounces of Water. So that twelve Dozen of Oranges may be put in a Quart Bottle, and preserved several Years. The same may be said of Lemons. When this is mixed with Water, and made into Punch, few are able to distinguish it from the fresh Juice mixed up in the same Manner. However, when the fresh Fruit can be had, the Fragrancy of the Peel may contribute somewhat to the
Cure

Cure of the Scurvy; and when these are wanting, the same thing may be obtained from a few Drops of their Essence, or the aromatic Oil contained in their Rinds; and if a small Quantity of this be added to the Extract, it will give it the Smell and Fragrancy of the fresh Fruit in great Perfection. Or rather add a little of the outer Peel to the Extract, a little before it is taken off the Fire, and then the nicest Taste will not be able to distinguish the Difference between the fresh Fruit and this. The Virtues of this Extract, thus made, lie in so small a Compass, that a Bottle will serve one Man at Sea several Years; for in the making of it there is little or nothing flies off besides the Water.

It will likewise be of great Use to Seamen to have Gooseberries, and the like, preserved in Bottles in the same Manner as the Pastrycooks; as also small Onions pickled in Vinegar, Cabbage, French Beans, &c. may be preserved by putting them in clean, dry stone Jars, with a Layer of Salt at the Bottom, then a thin Layer of the Vegetable covered with Salt, and so alternately till the Jar is full. Then the whole must be pressed down with a Weight, and its Mouth quite stopped that no Air or Moisture may enter. Thus the Vegetable may be kept fresh and green for a whole Year. At the time of using, the Salt is to be washed off with warm Water. This is the Manner by which they preserve that never failing Remedy, *Greenland Scurvy-grass*. Every common Sailor ought to lay in a stock of Onions, for they are a great Preservative at Sea. The *Dutch* Sailors are preserved from the Scurvy by pickled Cabbage. Portable Soup may be carried to all Places. When the Scurvy begins to make its Appearance, Sailors should be abridged in the same Degree of their Allowance of Beef and Pork, and eat them with Mustard and Vinegar; but the Pease ought always to be served out in full Allowance. It must be observed, likewise, that a Soup of boiled Cabbage and Onions will cure an adventitious Scurvy in its first Stage, either at Land or Sea, in any Part of the World.

Besides fresh and preserved Fruits and Vegetables, fermented Liquors of all Sorts are good, but more particularly Cyder. Among these are included many Wines of every Kind; or the Juices of Fruits may be fermented with Ale. Poor People that winter in *Greenland*, under vast Disadvantages in point of Air and Diet, preserve themselves from the Scurvy by Spruce Beer, which is their common Drink. Likewise the simple Decoction of Fir-Tops has done Wonders. The Shrub Black Spruce of *America* makes this most wholesome Drink just mentioned, and affords a Balsam superior to most Turpentine. It is of the

the Fir-Kind. A simple Decoction of the Tops, Cones, Leaves, or even of the green Bark or Wood of these, is an excellent Antiscorbutic; but perhaps it is much more so when fermented, as in making Spruce Beer. This is done by Molasses, which, by its diaphoretic Quality, makes it a more suitable Medicine. By carrying a few Bags of Spruce to Sea, this wholesome Drink may be made at any Time. But when Spruce cannot be had, the common Fir-Tops used for Fuel in the Ship should be first boiled in Water, and then the Decoction should be fermented with Molasses; to which may be added a small Quantity of Wormwood, and Root of Horseradish. The fresher it is drank, the better. When other Things are wanting, Tar-water may be fermented in the same Manner.

Those who have been weakened by long Fits of Illness, should have the Scurvy prevented by Panada of Bread newly baked, with a few Drops of the Extract of Lemons, and a Spoonful of Wine; as also Oatmeal and Rice, Gruels, Flummery, stewed Barley, with Raisins or Currants, Sago, and Wine, &c. but more particularly pickled green Cabbage, and small Onions boiled with the Portable Soup made weak. Most of their Food ought to be acidulated with Orange and Lemon Juice; and then, as the Strength increases, they should be indulged with more solid Food. But before this, they should have a small Quantity at a Time and often; and they should be brought back to their Labour by little and little. Exercise on a Deal board, with the Ends laid on two Chests, will be very proper; because it promotes the Circulation, and strengthens the Fibres, without any Loss of Spirits.

Bad Air of any Kind has a bad Effect upon a Ship's Crew; to remedy which, a red hot Loggerhead should be put into a Bucket of Tar, and moved about; so that all the Ship, once or twice a Day, should be filled with this wholesome antiseptic Vapour. In a moist Air, whatever promotes Perspiration is proper, such as dry Linen, Cleanliness, using the Flesh-brush, Garlic or raw Onions before they go into the Rain, and keeping the Bedding dry. Plenty of Mustard and Onions should be used with their Victuals.

The Cure of this Disease has been, in a great Measure, anticipated by the Means of Prevention, insomuch that little remains to be said about it. The Diet should be light and easy of Digestion, such as Broths or Soups made of fresh Meat, with Plenty of Vegetables, such as Cabbage, Coleworts, Leeks, Onions, &c. The Bread should be fresh and well baked, and Sallads of all Kinds are beneficial, but more particularly

ticularly Dandelion, Sorrel, Endive, Lettuce, Fumitory, and Purslane. To which may be added, Scurvy Grass, Cresses, or the like, to correct the cooling Qualities of the former. Summer Fruits are all good, as Oranges, Lemons, Citrons, Apples, &c. The Drink may be good sound Beer, Cyder, or Rhenish-Wine. Physic is never necessary if the fresh Broths and Greens keep the Belly open, and pass freely by Urine, Sweat, and Perspiration. If otherwise, the Patient may take a Decoction of Tamarinds and Prunes, with a diuretic Salt; and, on intermediate Days, he may be sweated with camphorate Boluses of Theriac, and warm Draughts of a Decoction of the Woods, or twelve or fifteen Grains of the Squill Pills of the *Edinburgh Dispensatory*.

Milk of all Sorts, if it agrees with the Constitution, will be very beneficial, as well as Whey, which is preferable. *Sal Polychrest* is useful, as a mild Purgative and excellent Diuretic. The scorbutic Juices, qualified with the Juice of *Seville* Oranges, are proper, especially mixed with the clarified Whey, with Sweating twice or thrice a Week, with the said Juice mixed with Sack-whey; for this is an Evacuation which scorbutic Persons bear the best. When there is no Danger of an Hæmorrhage, warm Baths, with Rosemary, Marjoram, Thyme, &c. may be good. In the Winter Time, genuine Spruce Beer, with Lemon and Orange Juice, is proper; or antiscorbutic Ale, made of an Infusion of Wormwood, Horseradish, Mustard-Seed, and the like; and it may be made laxative with the Addition of Sena. It must be drank while pretty fresh or new. *Van Swieten* says, he has often seen whole Families cured of the Scurvy in *Holland*, by the Use of a Cask of Ale, in which were put Heads of a Red Cabbage cut small, twelve Handfuls of Cresses or Scurvy Grass, and a Pound of fresh Horseradish previously infused.

When the Gums begin to itch, and are spongy, use a Gargle of the Bark, infused in Brandy. When the Putrefaction increases, use Barley-water and Honey of Roses, acidulated with a mineral Acid. The Fungus must be kept down, and, when necessary, cut away. The Ulcers of the Gums must be checked with a Touch of Spirit of Salt, or Oil of Vitriol diluted. When the Legs are swelled, or œdematous, gentle Frictions are to be used at first with warm Flannel, or with Woollen Cloths, charged with the Fumes of *Benjamin* and Amber, provided the Swelling be small, soft, and not very painful, rolling them up afterwards with an easy Bandage from below upwards: But if they are much swelled, stiff, and painful, they must be fomented with a discutient Fomentation, or rather the Steam of
the

the Fomentation should be received through a Blanket rolled round the Limb. This Operation, repeated Night and Morning, will render the contracted Joints supple. After this has been continued for half an Hour, the Parts are to be anointed with Palm Oil. If a vegetable Diet does not reduce the Limb, sweat it with burning Spirits, or Bags of warm Salt.

Ulcers of the Legs must be treated with very gentle Compression, to keep the Fungus under, and the same Applications must be used as to the rotten Gums. Mr. *Murray* has found a strong Tincture of the Bark of great Service in scorbutic Ulcers. In dangerous Hæmorrhages, the mineral Acids must be given by a little at a Time, and often; such as the Spirit of Elixir of Vitriol, together with small Doses of the *Peruvian* Bark. These likewise, with Red Wine, are the principal Things to be relied upon in putrid and colliquative Fevers of the scorbutic Type. All sorts of Pains, whether fixed or wandering, yield best to the general Method of Cure.

A scorbutic Diarrhœa should not be suddenly stopt at Sea, but the peccant Humour must be gently evacuated with small Doses of Rhubarb, and the Perspiration kept up with a little Theriac or Diascordium, with other warm, diaphoretic, and strengthening Medicines. In extreme Cases, Opium may be given more freely. The Diet must be glutinous and subastringent, with strong rough red Wine diluted. Sometimes five Grains of Allum may be given with the Diascordium, especially when Blood is evacuated in great Quantities. The most effectual Remedy, in scorbutic Dysenteries, is an Infusion of Ipecacuanha in Brandy, given in small Doses, and often repeated. Scorbutic Consumptions at Land require Blistering and Issues, as also riding on Horseback in the Country Air, and an entire Milk and Vegetable Diet, besides keeping the Breast open by Expectorants, such as Oxymel of Squills, Gum Ammoniac, and Balsam of Capivi. Disorders which remain after the Cure of the Scurvy, are to be treated in the common Way, with a Mixture of antiscorbutic Medicines. *Lind.*

It ought to be laid down as a general Rule, that the Scurvy, the most violent of all chronical Distempers, is not to be treated with drastic, but with the most mild and simple Medicines. Likewise the Patient ought to change the Air in which the Disease was contracted; and remove from unhealthy Places where the Air is impure, vapid, deprived of its due Elasticity, cloudy, or impregnated with noxious Exhalations, to healthier Situations and a purer Air. If his Circumstances will permit, he should travel Southward, especially to Italy or France. If this cannot conveniently be done, he may burn Juniper Wood

in his Chimney, or throw Amber on live Coals. Let him also use Exercise, not indulge himself in much Sleep, be temperate in his Diet, and feed upon Aliment of easy Digestion.

Physicians refer the different Symptoms of this Disease to different Salts; but their different and far fetched Corrections of these Salts are plainly ridiculous. Water is the known Solvent of all Salts, and this Intention will be best answered by pure and light simple Water. I will venture to affirm, that the universal Remedy for a Scurvy consists in mineral Waters; having, for more than thirty Years, prescribed them for the Cure not only of the most obstinate chronic Disorders, especially those of the *Hypochondriac* and *Hysterick* Kind, accompanied with a *scorbutic Impurity*, but also of a *confirmed Scurvy*. However, the Cure will be more certain, if an *accurate Regimen* be observed, and the Waters assisted by the repeated Exhibitions of proper *antiscorbutic* and *balsamic Medicines*. The *Bagnigge* Waters near *London* are excellent in scorbutic Cases. When these cannot be had, good Spring-Water, wherein a red hot Iron has been extinguished, may be substituted in their Room.

After Mineral Waters, nothing is more effectual in correcting a scorbutic Acrimony than a Milk Diet, or Whey alone, or impregnated with the Juices of antiscorbutic Herbs, such as *Scurvy-Grass* and *Water-Cresses*.

Scurvy-Grass, and all the Species of Garden and Water-Cresses, Horse-Radish, the Roots of wild Radish, and Mustard, are justly looked upon as Antiscorbutics, for they induce a surprising Change both in the disordered Fluids and Solids. To these may be added, the Roots of Gentian and Succory; the Leaves of Scordium, Carduus Benedictus, Wormwood, the lesser Centaury, Water-Trefoil or Buck-Bean. Balsamics and Corroboratives, as Juniper-Berries, the Tops of Fir and Pine-Trees, *Winter's Bark*, *Cortex Eleutheriæ*, and Peruvian Bark; the Gums Ammoniac, Sagapenum, and Galbanum; and the Woods of Sassafras, Guaiacum, and Aloes. Medicines which allay the Pains and Spasms, are the Fat of Animals, Cream, Oil of sweet Almonds, Spermaceti, Castor, Assa-Fœtida, Extract of Yarrow, and Chamomile, Diascordium, Saffron, Earth-Worms, Elks-Hoof, &c.

As to *Evacuations*, *Bleeding* should be used with the greatest Caution; and none but the *gentlest Purges* should be given, such as Senna, Rhubarb, or Manna; also the Pills made after the Manner of *Becher*, with depurated Aloes, Extract of Rhubarb, bitter Herbs, and temperate Balsamic Ingredients. The *Diuretics* should not be stronger than the Decoction of the Roots of Parsley, Celery, Fennel, and Asparagus. The safest *Diaphoretics*

phoretics are dulcified Spirit of Nitre, Flowers of Sulphur, Æthiops Mineral, Infusions, in the Manner of Tea, of Paul's Betony, Carduus Benedictus, Scordium, and Elder-Flowers; Diaphoretic Antimony, calcined and uncalcined Hartshorn, Amber, Native Cinnabar, Cinnabar of Antimony, and compound Powder of Crabs Claws. *These Things are adapted to a Cold Scurvy.*

In the *hot or alkaline Scurvy*, Scurvy-Grass is too warm to be administered alone, and should be corrected with Acids, such as Wood-Sorrel, the Juices of Citrons, Oranges, Barberries, and Pomegranates. Or, mix the Conserve of Scurvy-Grass with an equal Quantity of the Conserve of Wood-Sorrel, and give it twice or thrice a Day, with some antiscorbutic Water. This should be accompanied with Milk-Meats, Almond Emulsions, Barley-Broths, Water-Gruel, Chicken-Broths, with Endive, Lettuce, Sorrel, and Cresses, interposing, at proper Intervals, gentle Laxatives and Diuretics.

When the Scurvy proceeds from *muratic Salts*, which happens to those who live on smoked or high salted Fish or Flesh, and have corroding Ulcers, a stinking Breath, putrid Gums, a thick and saltish Urine, as is generally observed in old Sailors, then Whey, long and copiously drank, produces happy Effects; As also Citrons, China Oranges, and ripe Fruits; whereas spirituous and volatile Antiscorbutics are generally detrimental. *Hoffman.*

Willis, and, after him, *Allen*, reckons the *Streptus Ossium*, the Crackling of the Bones, or rather of the Joints, to be an incurable Symptom of this Disease; and the latter very judiciously gives this Reason for it; *that the Epiphyses are parted and quite separated from the Extremities of the Bones*, a Circumstance that can only happen in the last Stage, and in the very worst Kind of this Disease. A few Years ago I was afflicted with this Symptom myself, without any other Sign of the Scurvy.

When I turned myself in Bed of a Morning, almost all my Joints, by Turns, made a very sensible Noise, which ceased upon Walking, or Exercise; I therefore concluded, that the *Synovia* of the Joints was in some Degree coagulated by a saline Quality of the Fluids; upon which, I immediately altered my Diet, and avoided salt Meat of all Kinds, which, with a suitable Regimen, soon contradicted this terrible Prognostic. I have known many other Persons affected in the same Manner, to whom I gave the same Advice, and with the same Success.

But if *crusty black Ulcers* require external Remedies, we should only use Preparations of the Yolk of an Egg, Myrrh, Olibanum, Saffron, Oil of Roses, and *Peruvian Balsam*. When there is an excessive Impurity of the Humours tending to Putrefac-

tion, Scarifications will induce a Gangrene, which may be prevented by Lime-Water, exalted with camphorated Spirit of Wine and Sal Ammoniac.

We have an Instance of an Hypochondriac and Scorbutic Patient that was perfectly cured in three Days Time, by using, every Morning and Evening, a Bath of sweet Waters, prepared with emollient Herbs. There is nothing better to discuss hard and painful Tumours of the Legs and Feet than Baths, with Brook-Lime, Water-Cresses, and Scurvy-Grass, as also of the Tops of Fir and Pine-Trees, frequently used. But Baths ought never to be used when there is a putrid Corruption in the external Parts. *Hoffman.*

But Fomentations and Cataplasms of the *common Hemlock*, frequently repeated and duly continued, are found more effectual than all other Remedies.

After what has been said is well weighed, the Practitioner will be better able to make a good Use of Sydenham's Method, which is as follows:

Take away eight Ounces of Blood, unless there are Signs of a Dropsy; the next Morning exhibit the common purging Potion, which must be twice repeated every third Day.

On the Days when purging is omitted, and for a Month or two afterwards, prescribe the following things:

2. R. *Conserv. Coch. Hortens.* ℥ij. *Conserv. Lujul.* ℥j. *Pulv. Ari Comp.* ℥vi. cum q. s. *Syr. Limon. F. Eleæuarium, de quo cap. ad Magnitud. Nuc. Moschat. maj. mane, quintâ pomeridianâ & nocte, superbibendo Aq. Raphan. compos. Coch. vi. Vel sequentis:*
3. R. *Rad. Raphan. Rustican. raspat.* ℥ij. *Rad. Ari* ℥j. *Fol. Coch. Hortens. M.* xij. *Fol. Menth. Salv. Nasturt. aquat. & Becabung. an. M.* vj. *Sem. Coch. Hortens. parum. contus. ℥ls. Nuc. Moschat. ℥ls. Vin. Alb. ℥xij. Distillentur Organis communibus & eliciantur solummodo ℥vj. pro Ufu.*

Or the Leaves of Garden Scurvy-Grass must be distilled alone for the aforesaid Use.

The following Diet-drink must be for common Use:

4. R. *Rad. Raphan. Rustican. recens incisi* ℥ij. *Fol. Coch. hortens. No. xij. Passular. enucleat. No. vj. Aurant. cum toto incisi dimidium in Lagenam Vitream* ℥ij. *Cerevisiæ tenuis capacem, subere mox probe obturandum immittantur.*

Let there be six Bottles made for Use at a time; and after a few Days six more, that they may be ready before the former are all drank; let the same Method be continued.

Or,

Or, instead of this Drink, three or four Spoonfuls of the following Mixture may be added to every Draught of the Patient's Drink :

5. R. Rad. Raphan. Rustican. & Sem. Coch. hortens. an. ʒss. Cochl. hortens. M. ij. Pulpam unius Aurant. Contundantur in Mortar. Marmor. simul, sensim affundendo Vin. alb. ℥ss. coletur cum levi Expressione & reponatur pro Usu. SYD.

For the removing the Disorders of the Mouth, we must use antiphlogistic, antiscorbutic Medicines, appropriated to the various Species of Scurvies.

In hot Scurvies of the Gums, the following Gargarisms may be used :

6. R. Succ. Limon. recent. Mell. rosac. an. ʒij. Spir. Sal. dulc. ʒss. Aq. stillat. Rutæ ʒiij. M. F. Gargarisma. Or,
7. R. Sp. Sal. Marin. ʒij. Aq. stillat. Salv. ʒviiij. M. F. Gargarisma. Or,
8. R. Succ. Limon. recent. ʒj. Spir. Sal. Ammoniac. ʒj. Aq. stillat. Rut. ʒvj. M. F. Gargarisma.

In cold Scurvies :

9. R. Spir. Vin. camphorat. ʒss. Tinct. Myrrh. ʒj. Rob. Juniperin. ʒss. Aquæ stillat. Absynth. ʒiv. Sal. Gem. ʒj. M. F. Collutorium Oris. BOER.

The Gums may be rubbed Morning and Evening with the Tincture of Gum Lac ; or with Honey of Roses acidulated with Spirit of Salt, or the Juice of Lemons. Or the Patient may chew Myrrh, and hold it in his Mouth for some Time ; or if the Teeth are rubbed with it, it will be very useful. Or an Eleſtuary may be made of Myrrh, Dragon's Blood, Biſtort Root, Nutmegs, and a little Alum, either crude or burnt, with a sufficient Quantity of Honey of Roses ; and let the Gums be thoroughly cleansed with some of it. Likewise the Infusion of Sage in red Wine is no despicable thing for this Purpose. Heister.

Some Years since it was proposed by Dr. Macbride to try fresh Wort, or Infusion of Malt, as a Substitute for the Juices of Vegetables in the Cure of the Scurvy at Sea : For as Wort is a Liquor perfectly similar, in all its Qualities, to the recent Juices of such sweet Vegetables as are known, from repeated Experience, most certainly to cure the Scurvy, he naturally inferred, that if taken, like them, in a Quantity sufficient, it would, in all Probability, produce the same salutary Effects. Moreover, as Malt, if well dried, and carefully kept in a proper Part of a

Ship, it may be preserved sound for a great Length of Time: He was for having it carried to Sea, in order to be brewed into *Wort* as often as it might chance to be wanted, and thus prove a Remedy always in Readiness against a most fatal Disease.

In *October* 1765, the *Jason* Man of War being ordered to *South America*, returned to *England* in *March* 1767, and the Captain reported, that upon Trial, the *Malt-Wort* had succeeded beyond Expectation; the Surgeon, too, gave a particular Detail of the several Scorbutic Cases wherein the *Wort* had been successfully exhibited, together with the Quantities.

Also a Letter from the Surgeon of the *Nottingham East India-man*, dated *October* 16, 1766, to Dr. Hunter, contains six Cases, with the Particulars of each noted down upon the Spot, wherein he gave the *Wort*, tending to prove its great Utility in the Cure of the Scurvy at Sea.

Whatever Alteration was made in the Habit of these Scorbutics, was entirely owing to the *Wort*, and the Panada made of it; for, on Account of the Soreness of the Mouth, they could not eat any thing solid.

From these Trials it appears very probable, that the Use of *Wort* will, in three or four Days, abate the scorbutic Pains, excite a Looseness, and disperse the Eruptions: That in ten Days or so, the *Wort*, in most Cases, if taken in time, and to a sufficient Quantity, will recover the scorbutic Patient so far, as to be able to go upon Deck fit for moderate Duty: That, if continued in smaller Quantity, after Recovery from the Disease, it will prevent their relapsing for Months without any other Remedy, which nothing that has yet been carried to Sea has ever done: That is, aided by Portable Soup, Rue, *Bowen's* Patent Sago, fresh Meat Broths, and the like, there will be little Danger of this Disease, even in the longest Cruizes.

The *Malt* should be ground daily in a Hand-Mill. Three Measures of boiling Water poured on one of the ground Malt, put into a large Copper Decoction-pot, and there left to stand for four Hours, when being strained off through a Cloth, each of the Patients to be served with their Allowance of it.

When the Sick become numerous, the Water to mash the ground Malt may be boiled after Dinner in the Ship's Copper, and a small wooden Vat may be placed in the Galley for the Purpose of Brewing; the Infusion may be strained through a Hair-Cloth, and received into a clean wooden Vessel, where it will keep sweet for above thirty Hours.

Whether Malt will keep during the Time of a whole *East India* Voyage, has been queried.—The Malt carried out in the *Jason* was perfectly sound after an Absence of eighteen Months.

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All the Precaution that seems necessary with respect to the Administration of *Wort*, is to begin with a small Quantity, and increase gradually, as it is found to agree. When the *Wort purges too much*, abstain, or lessen the Dose; or add as much of the *Elixir of Vitriol* as will make the Drink gratefully sour: If it *gripes* so much as to create Distress, give from fifteen to twenty Drops of Liquid Laudanum, in two Spoonfuls of *Cinnamon Water*, at Bed-time.



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IN *Northern* Climates, though the Cold is intense, yet if the Air is pure and dry, and the Men are well cloathed, there are few Diseases produced. But when the Weather is unsettled, cloudy, wet, and rainy, the usual Consequences are Colds, attended with feverish inflammatory Symptoms, and especially rheumatic, pleuretic, and peripneumonic Complaints. These last require plentiful Evacuations, but chiefly Blood-letting, which, when timely and freely used, will prevent Consumptions and chronic Rheumatisms.

When the Men are almost constantly wet and chill from bad Weather, and undergo an uncommon Degree of Fatigue, it will be proper to let them have the following Mixture, *viz.* A Pint of Small Beer and a Quarter of Brandy sweetened with Molosses, to which may be added as much Vinegar as will render the Mixture palatable; or, instead of the last, Cream of Tartar. This the *Russians* call *Asbbetten*. Dry Beds and Cloathing are most necessary Articles; for it is observable, that the most naked ragged Fellows are principally attacked with Winter Diseases. The Scurvy is a Disease common in the Winter and Spring.

While the Ships are in the Channel, one of the Press-tenders may be ordered out, once a Fortnight, from *Plymouth*, to repair to the Rendezvous or Station of the Squadron, with live Cattle and Greens, to be given to the Men instead of Salt Meats; and the Men on Board the Tender should have the Privilege of carrying, on their own Account, all Manner of Roots, Fruits, and Vegetables, and be allowed to sell them in the Fleet; Onions, Leeks, Shallots, Turnips, Cabbage, Carrots, Apples, soft fresh Bread, Cyder, Lemons, Oranges, and even the most common Herbs proper for the Season; such as Dandelion, Water Cresses, Brook-lime, and the like sove-

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reign Antiscorbutics, which would be a high Refreshment for the Sailors. The Sutlers should always be obliged to bring Rob of Lemons, [See p. 332, & seq.] Juice of Oranges, and the Juice of common antiscorbutic Herbs, which, being mixt with a sixth Part of Brandy, will remain good for many Months. If a Regulation of this Sort was properly established, some Thousands of Lives might not only be preserved, but Ships would be enabled to keep the Seas much longer.

The most proper cordial Dram a Sailor can use in the Winter, is Garlic Brandy; for a small Quantity of it not only warms the Stomach, but keeps the Breast, Kidneys, and Skin free from Obstructions. But this nor no other Dram should be given to a Man almost chilled to Death with Cold, for in this Case it hath often proved fatal; but he should be immediately put into a warm Bed, and have some warm Gruel or Sage-Tea, and then a Dram may be allowed. In cold rainy Weather, Tea made with Sage, Sassafras, or a few roasted Juniper Berries, with the Addition of a little Garlic-Brandy, will be very beneficial. Likewise a Man will never be so liable to catch Cold when he is wet upon the Deck, and uses Exercise, as when he is below in his wet Cloaths, or sleeps in them, or in a damp Bed. When he goes upon Deck he should eat a Bit of Biscuit and drink a little *Ashbetten*, and then the Weather will probably have but little Power to alter his Health for the worse.

New Ships often produce ill conditioned irregular Fevers, attended with a Diarrhoea and anomalous Symptoms, occasioned by the Sweating of the Wood or Timbers in cold Countries; to remedy this, the Vessel should be often fumigated with the Steam of Tar or Pitch. Another Thing hurtful to the Health of Sailors, is washing the Deck after Sunset.

The free Use of salted Beef and Pork in southern Climates, is productive of scorbutic and many other Diseases, and therefore a short Allowance in these Articles will be very proper. Thus the *Sheerness*, bound to the *East-Indies*, at the Crew's own Request, had Beef only once one Week, and Pork another; in Consequence of which the Ship arrived at the Cape of *Good Hope* without one Man sick on Board. The *Sheerness* remained in *India* some Months, where none of the Men, except the Boats Crew, were allowed to go on Shore, notwithstanding which all the Sailors enjoyed a most perfect State of Health. They were indeed supplied with fresh Meat while they were there. In their Return to the *Cape* they were only ten Weeks, and yet, by eating their full Allowance of salt Provisions, twenty of them were in a most miserable Condition, with

with Scorbutic and other Disorders. It is likewise observable, that they had the Use of *Sutton's* Air-pipes on their Return, which were casually stopped in their Passage to the *Indies*. However, they were recovered on Shore, and then agreed to observe their former Method, by which Means the Ship returned with the full Complement of 160 Men, and with unbroken Constitutions. They buried but one Man, and he died of a Salivation for the Pox.

As a Help in these long Voyages, there might be portable Soups made with the Shins, Necks, Hearts, and other Offal of the Cattle, as also with Mutton for Variety and for the Delicate. It would be likewise a great Advantage if new Bread could be baked every Day on Board the Ships. Wine is the best of all Cordials in the Decline of Fevers, and is a much better Restorative than Rum, however mixed or prepared. It is likewise an excellent Means to prevent Infection. Some Casks of *Madeira* Wine should be preserved for the Use of the Sick in these Voyages. The swallowing large Draughts of undiluted Spirits, has always the most fatal Consequences in every Climate; but when they are converted into Punch they become very salutary Liquors, preventing Diseases which arise from hot and moist Weather, and the Tendency to Corruption in the animal Fluids, which is constantly induced thereby. Likewise it would be of great Advantage, if the Rob of Lemons could be made cheap by the *West-Indians*; for, as *Bonitus* observes, Lemons are of great Use against malignant Fevers, pestilential Fevers, &c. and better than any simple Remedy. Therefore a large Quantity of Syrup of Lemons should always be put in the Surgeon's Chest, as well as Orange Juice in Bottles, with a little Sallad Oil poured in the Neck. Leeks and Coleworts cleaned and put into a wooden Vessel, with Bay-Salt between each Layer, and then pressed down with a Weight, will keep a long while.

Cream of Tartar being the essential vegetable Salt of Wine, is a very proper Succedaneum for the Acid of Punch, when Fruit is wanting; and Orange or Lemon Peel would greatly improve the Flavour. Besides, Cream of Tartar is the most grateful of all Acids substituted in the Room of the Juice of Lemons and Oranges, and best adapted to the Constitution of Mariners, as well as the cheapest; for an Allowance of the eighth Part of an Ounce will not cost the Government one Shilling yearly for each Man in the *West-Indies*. Two Pounds and a half of Cream will be sufficient to acidulate an Hogshead of Water. This, with Rum and Sugar, will become a salutary Composition, of a cooling, strengthening, antiputrid, and diuretic

diuretic Nature; for there is nothing more represses the inflammatory and intoxicating Power of Spirits than Acids.

When a Sailor happens to be dead drunk, his Head should be raised, and a Sponge dipped in Vinegar should be held to his Nose, and if he can drink, he should have warm Water mixed with Vinegar; Bleeding will likewise be proper, and a gentle Emetic which operates speedily. Likewise dipping the Feet in cold Water will take off the Pressure from above, and solutive Clysters will abate the Distension. It is but too well known how many People lose their Lives by excessive Drinking and spirituous Liquors. The same Treatment will be useful after a large Dose of Opium. The Use of Dr. *Hale's* Ventilators is now universally known, and their happy Effects in cleansing the Ship from foul Air.

The Use of cold Bathing-Tubs under the Forecastle, and Bathing in the Sea early in the Morning, have been found extremely beneficial in hot Countries; for this Practice not only braces up the Fibres and contributes to Health, but Cleanliness likewise, and promotes Discharges by the Skin. Diarrhœas and other Complaints, the Effects of great Heat, have been cured by Bathing, and their Returns prevented. One Ship was remarkably healthy in a Voyage to the *East-Indies*, from the Use of Cold-bathing, when her Consort, at the End of the Run, had two hundred Men sick on Board. But Sailors should not stay too long in the Water, nor go in when over-heated with Work or Liquor, nor when the Stomach is full, nor when there is an Eruption with a prickly Heat on the Skin.

Diseases, in a Voyage to the Southward, are generally of an inflammatory Nature, and therefore it hath been customary with some to bleed the Ship's Company when they first arrive in a hot Climate; but this Practice is liable to many Objections; and besides, it is no Security against the Diseases of an intemperate Climate. The most dangerous Diseases proceed from a Continuance of hot, moist, close Weather, or from heavy Rains, common at some Seasons of the Year between the Tropics. At first, a few of the Sailors are seized with the Bloody-Flux, which is succeeded by a malignant Fever of the remitting or intermitting Kind; but most commonly it is like a double Tertian. This is epidemic between the Tropics, and is the autumnal Fever of all hot Countries. The Safety of the Patient entirely depends on the Fever's intermitting: Or, at least, on its remitting so much as to allow an Opportunity of throwing in the Bark. Half an Ounce or an Ounce of the Jesuits Bark is the only sovereign Medicine

cine in this Sort of malignant Fevers, though they put on different Appearances. Even in the Fever of the Island of *St. Thomas*, which is deemed to be of the most malignant and fatal Species, the Bark is the only Remedy; likewise the continual Use of it is an effectual Preservative against a Relapse, as well as against an Attack of this Fever, and other malignant Disorders, usual in unwholsome Climates, during a corrupt and pernicious Disposition of the Air. The Factories on the Coast of *Guinea* have tried this Remedy with Success, by way of Prevention, during the rainy and sickly Season.

The Diseases of *Hungary* are analogous to those on the Coast of *Guinea*, and in the autumnal Season are altogether as bad; and yet, when there was scarce an Imperial Officer that escaped these malignant Sicknesses, Count *Bonneval* and his numerous Attendants continued in perfect Health, by taking, two or three Times a Day, a small Quantity of Brandy in which the Bark was infused, and he obliged all his Domestics and Attendants to do the like. By this Regimen he enjoyed, in this sickly Country, perfect Health to a great old Age. This Account is given by Dr. *Kramer*, who also affirms, that a whole Regiment in *Italy* was preserved from the like Diffempers by the Use of the Bark, while the rest of the *Austrian* Army were greatly annoyed with them. The Bark might be made extremely palatable, by infusing it in Spirits with Orange-peel; and the bilious Fever and the Bloody-Flux might be prevented. Four Ounces of Bark and two Ounces of dried Orange-peel, will be sufficient for a Gallon of Spirits, and two Ounces may be allowed each Man a Day, when there is an Apprehension of these malignant Diseases. It will be best to take half in the Morning on an empty Stomach, and the other half when they are called out to their Night Watch. The Bark is an excellent Medicine for Sailors on many Accounts, it being the greatest Antiseptic taken inwardly of any yet discovered.

It may in general be remarked, that in sultry Climates, or during hot Weather, in all Places subject to great Rains, where the Country is over-run with Thickets, Shrubs, or Woods, especially if there are Marshes or stagnating Waters in the Neighbourhood, the malignant Diseases abovementioned may justly be dreaded. The Fens and Marshes in *England* are bad for Strangers, but the woody and marshy Lands in hot Countries are exceedingly more pernicious to the Health of *Europeans*. In such Places it will be best for Ships to anchor as far as they can from the Shore, and never to run into Rivers and Bays within Land, especially where high Mountains intercept

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intercept the Sea-Breezes. It is best to keep out of the Reach of the Land-Breezes, or at least at such a Distance that their Malignity may be small. The same Precautions should be taken in Places, either during, or soon after, the rainy Season. We know by Experience, that Ships lying in a Harbour have suffered greatly, while Cruizers in the open Sea have enjoyed perfect Health.

But when this Situation of a Ship or Ships cannot well be avoided, the Crew should be as little upon Deck as possible before Sunrise and after Sunset, because there is commonly a Land-Wind in the Night, and because the noxious Vapours are in some measure rarified and dispersed when the Sun is above the Horizon. Besides, the Night Air at Land is always very moist in Southern Climates, occasioned by excessive Dews; and these Dews are found to be extremely pernicious to such Persons as are exposed to them.

When a Ship rides at Anchor near marshy Ground or Swamps, and the Wind blows directly from thence in hot Weather, the Gun Ports ought to be kept shut; or if she rides with her Head to the Wind, a thick Sail ought to be put upon the Fore-mast, along which the Smoke of the Galley should be made to ascend. At such Seasons the Men should be enjoined to smoke Tobacco, and the Carpenter should fumigate the Ship with the Steams of Pitch or Tar, Boats Crews and Men employed on Shore, being most exposed to the open Air, should be often relieved, and never suffered to sleep on Shore, in Tents or otherwise. But when Men are obliged to remain on Shore, their Tents should be close, and erected on the dryest Spot they can find, that is, upon dry Sand, Gravel, or Chalk near the Sea-shore, and they should not sleep on the Ground, but in Hammocks. The Door of the Tent should be towards the Sea, and the back Part secured by double Canvas. All old forsaken Houses, Caves, and such like Places, should be well purified with large Fires, and the Men should be well covered while they sleep; and in the Morning and Evening they should take a Dram of the Infusion of the Bark. Likewise the Officers and Sailors, when on Shore, should be allowed a more plentiful, but not immoderate, Use of vinous Liquors.

If, on the Coast of *Guinea*, and on all Places in the *East* and *West-Indies*, where the *English* Factories are near the Sea, there was another Ship (besides that appropriated for the Gentlemen of the Factory) lying at a proper Distance from the Land, during the sickly Season, to receive *Europeans* immediately upon being taken ill, it would be a certain Means of saving

saving many Lives. This Ship might be considered as an Hospital for the Fort or Factory.

The Name of Hospital, or Hospital Ship, may convey a frightful Idea of Sicknefs and Mortality to some People, but without any Reason, as this Vessel ought to be kept perfectly clean, and should never be crouded.

Besides, on board of her, the Sick will be well accommodated, and will always breathe the purest Air.

In *Europe* all Nations have Hospitals, and many of them have found it absolutely necessary to erect Hospitals, or Infirmaries for the Sick, in their Settlements and Factories Abroad. The Difficulty is, to find a convenient and healthy Spot. The Manner of obviating this we point out; and if, by Way of Example, a Ship or Hulk was moored at the Mouth of the River *Senegal*, and properly fitted for the Reception of the Sick in that Garrison and Factory, it would be a Means of saving a great Number of Lives during the Rainy Seasons.

Transferring the Sick, and their Hospital, from the Land to the Water, would put an End to that dreadful Mortality amongst our Troops in that Part of the World. This Method is therefore more particularly recommended, on Account of the Soldiers stationed at *Senegal*, and will be attended with many Advantages to them.

In the first Place, on board a Ship, with proper Care, a greater Degree of Neatness and Cleanliness may be procured for the Sick, by Means of Funnels pointing to the Sea, and Wash-cocks to cleanse them occasionally, than in most Infirmaries on Land.

2dly, They may there be supplied with the most wholesome * fresh Water, from the Element which surrounds them, by a simple Distillation; a Discovery made in the Year 1761: If more be wanted for the most common Uses, Sails or Awnings, properly extended, will procure them a sufficient Quantity of Rain Water.

Here it may not be improper to take Notice of a common Opinion which prevails with many in those Parts abroad, that such as have been thoroughly wet with Rain, or other fresh Water, will from thence suffer no Indisposition, provided that before putting on dry Cloaths they dip themselves in the Salt Water, or wet their Skin all over with a Sponge dipped in it.

3dly, Having already † pointed out the Methods of rendering the Air in a Ship at all Times wholesome, by Means of

* See Essay on Preserving Seamen, 2d Edit. pag. 85, 86, &c. where it was first published.

† Ibidem, pag. 7th, 105, &c.

purifying Fumes, and Fires, we shall only add on this Head, that when the Ventilation, or Change of Air, becomes necessary, it may be more effectually accomplished by opening some Port-Holes in a Ship, than in most of the Chambers on Land. A Ventilator may likewise be provided, for the more effectual drying of the Timber, and of the lower Apartments of the Ship: It may be worked by a Wind-Mill Fly. It is here necessary to observe, that all these Ventilators should be made Use of only in dry Weather; and for the further Preservation of the Ship, the Bottom should be sheathed with Copper.

4thly. Besides the great Benefits of neat and clean Accommodations, of good Water, and of a pure Air, it is in the Watery Element alone that the most wholesome Nourishment, and the most proper Food for the perfect Re-establishment of Health, is to be found; I mean, a great Plenty and Variety of Fish. When the Sick in those Countries can be supplied with Green Turtle, they recover very quickly, not only from the Scurvy, but from other Diseases proceeding from a Relaxed Habit of Body, and a watery State of the Blood. It has been often remarked, that Fluxes, Dropsies, and an infirm Constitution of Body, which are the frequent Consequences of acute Diseases in those Climates, proceed, in a great Measure, from the low poor Diet of the Country, consisting chiefly of boiled Rice, lean Goats, Fowls, and Food of that Kind; which render the Recovery of *Europeans* extremely slow and tedious.

In those Climates Fish caught at Sea are with Difficulty procured for sick or weak People, as they cannot be preserved fresh many Hours, and are often tainted before they can be brought on Shore. They are so apt to corrupt, even during the Coolness of the Night Air, that it is a prevalent Opinion among the Fishermen there, that the Moonlight in particular has a quick and powerful Influence in spoiling their Fish.

But by a peculiar Blessing of Providence, not only the River *Senegal*, but all the great Rivers whose Sources are within the Tropics, have deposited, by their annual Inundations, great Quantities of Slime and Mud at their Openings into the Sea, which form what are called the Bars to those Rivers. Those Bars, or Shoals, consisting of a fine soft Ooze, often extend themselves many Miles from the Land, and afford not only a safe Anchorage for both the floating Factories and Infirmary Ships, but they abound also with an incredible Quantity of excellent Fish; and one Man in the Infirmary Ship lying off *Senegal*, or in most other Places on the Coast of *Guinea*, will

be

be able to catch as many Fish of different Sorts in two Hours, as will be sufficient for the Nourishment of a hundred sick People. It has been found by Experience, that no Food whatever contributes more to the perfect Recovery of Health and Strength, and to the Prevention of the fatal Consequences of Fevers in hot Climates, than Fish, or rich nourishing Fish-Soup, warmed with the Spices of the Country, and, if necessary, rendered palatable by the Addition of Lime Juice.

Upon the whole, the immediate Removal of the Patient from a bad Air, as soon as he is perceived to be affected by it, into the Infirmary Ship, will, in all probability, render his Disease mild, and easily curable, and his Recovery speedy and perfect. The Constitution thus preserved, will at length become so seasoned and habituated to the Climate in a Course of Time, that it will be rendered much less susceptible of any injurious Impressions either of the Air or Soil. One Merchant, Factor, or Soldier, thus constitutionally naturalized to the Country, becomes more useful, and his Services may be more depended upon there, than ten newly arrived unseasoned *Europeans*.

It has been a received Opinion, that the first Fever or Fit of Sickness alters the Constitution of the Body, so as to season it to a new Climate: But I am of Opinion, that the sudden Changes of Climates are greatly the Causes of Sickness, and that a seasoned Constitution in any Part of the World is chiefly to be acquired by remaining there for some Length of Time.

From the very numerous Opportunities I have had of knowing the general State of Health enjoyed by the Seamen on board his Majesty's Ships in Foreign Voyages, it appears, that sudden Changes from Heat to Cold, or from Cold to Heat, produce almost similar Effects.

Thus, if four or five hundred Seamen and Soldiers sail from *England* to the *West-Indies*, and make a sudden Transition from a cold Climate to a very great Degree of Heat, many of them will be seized with a Diarrhoea; and such of them as drink immoderately of Rum newly distilled, on their first Arrival at *Jamaica*, will probably die of violent Fevers: But if the Men are kept on board Ship, and much at Sea; if the Ship, especially during the sickly Season, does not put into any very unhealthy Port, after being twelve Months in the *West-Indies*, they will become perfectly seasoned to that Climate, and enjoy as good a State of Health as if they were in *England*.

In like manner, if the stationed Ships, which are generally relieved at the Expiration of three Years, arrive upon the Coast of *England* in the Winter, and are long detained at Sea by contrary

trary Winds, in a very cold Season, the Men, having been injured to a hot Climate, will be again attacked with Diarrhœas; the Cure or Removal of which will entirely depend on keeping the Patients warm. LIND.

Of the Dropsy.

DROPSIES are of various Kinds, but those usually treated of by Authors are the *Anasarca*, *Ascites*, and *Tympanites*.

When the *Lympha* stagnates throughout the whole Habit of the subcutaneous Fat, or is shed therein, it produces an *Anasarca*, which extends itself also to the *Abdomen* and *Scrotum*.

When the Water is collected in the Duplication of the *Peritonæum*, in the Cavity of the *Abdomen*, between the *Peritonæum* and the *Viscera* of the *Abdomen*, or in the dilated Cavities of the Glands and Vessels contained in the *Abdomen*, it is called an *Ascites*. If the Dropsy is owing to the Rarefaction of some Steam or Vapour, arising from Water, Pus, *Ichor*, or Air, pent up and heated till they putrify, then it is a *Tympany*.

The Causes of these Diseases may be, a Family Disposition thereto; a hasty drinking too great a Quantity of cold Water, and its not being evacuated upwards or downwards, or by Sweat or Urine excited by Heat or Motion; acute Diseases, especially the most ardent, attended with unquenchable Thirst, or otherwise. A lenterious Dysentery of a long Continuance, all obstinate Obstructions of the *Viscera*, and a *Schirrus* of the Liver, Spleen, Pancreas, Mesentery, Kidneys, Womb, or Intestines; the Jaundice; a violent Quartan Ague of long Duration; a Lientery; a Diarrhœa; a long Dysentery; the Coeliac Passion; an Empyema; a Consumption; the Gout; too great Evacuations, chiefly the Blood; the drinking of sharp, fermented, and Spirituous Liquors; the feeding on tenacious and hard Aliment; very large and numerous *Hydatides* hanging in the Cavity of the *Abdomen*; Melancholy; the Scurvy, and the like. BOERH.

The first Sign of the Approach of this Disease, is the Swelling of the Feet and Ancles, which in the Evening will pit, if pressed with the Fingers; which Swelling disappears in the Morning, especially if there begins to be a Difficulty of Breathing. And yet it must be remembered, that pregnant Women, or whose Menses are stopped, as also when suddenly freed

freed from an inveterate Asthma, are affected with the like Swelling. When the Feet and Legs are distended to the utmost, the Waters rush into the Abdomen, and cause it to swell by little and little, till at length the more noble Viscera are affected therewith, and the Patient is soon overwhelmed with the Deluge. In Proportion as the diseased Parts increase in Bulk, the rest fall away: At the same Time the *Difficulty of Breathing*, *Paucity of Urine*, and *intense Thirst*, the three principal Symptoms, grow more intolerable. Sydenham.

When the Abdomen is swelled, it will sound, when struck, if the Disease is a *Tympany*. In the *Ascites* there is a Noise of the fluctuating Water upon bodily Motion, unless the Waters are inclosed in a Cystis or Bag.

Besides the above-mentioned Symptoms, there is a Heaviness, a Torpor, a costive Body, and at length a slow Fever; the Patient never sweats. In process of Time, the stagnating Waters, being pent up in a hot Place, become acrimonious; hence Ulcers, Gangrenes, Bleeding at the Nose, a Protuberance of the Navel, a Mortification of the Viscera, and Death. Boerb.

The *Curative Indications* in an *Anasarca*, as well as in an *Ascites*, are to restore the Humours to their natural Fluidity; to invigorate the languid Circulation; to brace up and strengthen the relaxed Solids; to promote the Secretions; and to carry off the redundant stagnating Juices.

Strong drastic Purges, Steel Medicines, Absorbents, Detergents, and Stomachics, are best suited to answer these Intentions.

The first thing to be done is to evacuate the serous Humours by *Cathartics*.

1. R. Cremor. Tart. ℥ss. Mechoacan. Jalap. an. ℥iij. Sem. Ebul. ℥ss. Gut. Gamb. ℥iv. Nuc. Mosc. ʒj. M. F. Pulvis Dos. ℥ij. vel ʒj. ex Vin. alb. hauriendus. Or,
2. R. Syr. è Spin. Cervin. ℥j. Rhei Optim. ʒss. Aq. Raphan. comp. ℥j. M. F. Haustus. TOWNE. Or,
3. R. Vin. alb. ℥iv. Jalap. subtiliss. pulv. ʒj. Zinzib. pulv. ʒss. Syr. è Spin. Cervin. ℥j. M. F. Potio.

This is to be taken early in the Morning, every Day, or every other Day, according to the Strength of the Patient, till the Swelling of the Part affected abates; or,

4. R. Tamarind. ℥ss. Fol. Sen. ʒij. Rhei. ℥ss. coq. in q. s. Aq. ad ℥iij. in Colatur. dissolv. Mann. & Syr. Rosar. solut. an. ʒj. Syr. è Spin. Cerv. ℥ss. Pulv. è Scammom. gr. vi. M. F. Potio fumenda ut supra. Or,

5. R. Pil. ex. *Colocynth. cum Aloe*, ℥j. *Elater. gr.* iij. *Ol. Chem. Caryophil. gut.* ij. *F. Pil. N^o.* iij. *cap. summo mane; repetanturque ut Opus fuerit.* Or,

6. R. *Cortic. interior. Sambuc. è ligno derasi M.* iij. *coq. in Aq. & Lact. partibus equal. mistorum* ℥ij. *ad* ℥j.

Let the Patient take one Half in the Morning, and the other in the Evening, till he recovers. But it must be observed, that unless the Patient is easily purged, this Decoction will be of no Use.

There are two things which I look upon to be of uncommon Efficacy in the Dropsy; these are, *Elaterium* and *Antimonial Wine*, especially for those which are not easily purged; two Grains of the former is a proper Dose for most Constitutions: I generally give it, as in the above Formula, in Pills.

As for the *Antimonial Wine*, ℥jss. or ℥ij. as the Patient's Strength will admit, given in the Morning, will, in due Time, free the Abdomen from the Load of Water. If it does not purge downwards as well as upwards, I mix it with Syrup of Buckthorn after the third or fourth Dose. *Sydenham.*

Some greatly recommend *Bontius's* Pills for the Dropsy, the Dose of which is from Half a Scruple to a Scruple; but *Heister* prescribes them from Half a Dram to a Dram.

7. R. *Aloes opt.* ℥ijss. *Gutt. Gamb.* ℥iss. *Diagrid.* ℥j. *Gum. Ammoniac.* ℥iss. *Tartar. Vitriolat.* ℥ss. *Syr. Rosar. Solut.* q. s. *M. F. Massa Pil.*

Mayerne affirms, that *Mercurius dulcis*, without doing any Mischief to the Body, acts directly upon the morbid Cause, and if possible destroys it. If a Salivation follows it is not dangerous, but may be prevented if the *Mercurial* be joined to an active Cathartic.

Many praise the Juice of the Root of *Iris palustris lutea*, and we have an Instance of its Efficacy in a most deplorable Dropsy, in the *Med. Essays*; eighty Drops of which were given every Hour in a little Syrup of Buckthorn, which brought away many Quarts of Water by Stool the first Night; the Quantity was daily increased till it came to two Drachms, and at last was mixt with a fourth Part of the Syrup, and given by Spoonfuls.

In the Use of Cathartics, three things are to be carefully heeded: First, Whether the Patient is easily purged or not; if he is, an Ounce of Syrup of Buckhorn alone will be sufficient; if not, the strongest of the above-mentioned will scarcely do.

Secondly, All Cathartics that work slowly are rather hurtful than beneficial; therefore a Purge had better be too strong than too weak.

Thirdly,

Thirdly, the Waters should be drawn off with as much Speed as the Patient's Strength will bear ; for Delays give Time for them to be collected afresh.

Sometimes *Purgatives* are to be intirely omitted, when the Patient is of a weak Constitution, or Women subject to Vapours ; and then *Diuretics* only should be made use of ; among which, those are the most powerful which consist of Lixivial Salts. *Sydenham*.

Mayerne prefers *Nitre* before all others, because it quenches Thirst ; which I can recommend from Experience ; for I knew a young Woman who had tried all other Methods in vain, and was given over as incurable, that was perfectly recovered by taking a Drachm of Nitre every Morning in a Draught of Ale. *Hoffman* directs six or eight Grains of the Powder of Squills, with the same Quantity of the Root of *Burnet* or *Arum*, and a few Grains of *Nitre*. It should be exhibited in a warm Vehicle. *Wagner* also gives great Encomiums of the Powder of Squills with *Nitre* ; the Dose, he says, is from four to ten Grains, with double the Quantity of *Nitre* ; it almost always operates as a Diuretic, and sometimes vomits or purges.

8. R. Cinerum Genistæ ℥j. infundantur frigide in Vin. Rhenan. ℥iv. Liquoris per filtrationem colati, ℥iij. manè, quintâ pomeridianâ, & serò, singulis Diebus exhibeantur, usquedum Humor evanuerit. SYD. Or,

9. R. Ciner. Genist. ℥j. Fol. Absynth. M. j. Vin. Rhenan. ℥iv. infunde frigide, Dos. ℥iv. mane, horâ quartâ pomeridianâ, & serò. TOWNE. Or,

10. R. Millep. ppt. ʒij. Sapon. Venet. ʒss. Gum. Ammon. ʒij. Balf. Sulph. Tereb. q. s. F. Pil. x. è sing. Drach. quarum sumat vj. vel viij. ter sing. Diebus, superbibendo Cyath. Vin. Med. sequent.

11. R. Sal. Absynth. ʒj. Sacchar. alb. ʒiij. Ol. Nuc. Moschat. Chem. gutt. vj. Vin. alb. ℥j. M. F. Vin. Medicat.

Boerhaave proposes to attenuate the Humours by small Doses of mercurial Preparations, to be taken every other Morning, in a little Pulp of a roasted Apple ; as half a Grain of Turbith mineral, with ten Grains of white Ginger ; or one Grain of red Precipitate, with six Grains of Nutmeg ; or seven Grains of Calomel, with eight of *Winter's Bark*. Or,

12. R. Emetici mitissimi, ex Antimon. P. ij. Nitri P. v. detonando preparati gr. iv. F. Pulvis, omni mane sumendus. BOERH.

Some have been cured by a pertinacious Abstinence from all Liquids, living upon Sea-Biscuit with a little Salt, and a very little rich Wine. A Woman that abstained from Drinking an entire Month, used to put a Bit of Toast, dipped in Brandy, upon her Tongue, which caused the Saliva to flow into her Mouth, and so she recovered: *Heister*. Externally, Frictions of the Parts have been found beneficial, as well as external Applications, of which the following is not of the least Efficacy:

13. R. Sapon. Venet. ℥ij. Aq. Alexeter. spir. ℥xij. M. accurate pro fomento, Regioni Abdominis, cum laneis Pannis applicand.

To strengthen the Tone of the debilitated Viscera, after the Waters are evacuated, Wines are proper, as also Steel, and such Strengtheners as are greatly astringent.

14. R. Limatur. Ferri recent. ℥ij. Cort. Peruv. Winteran. an. ℥ij. Rhabarb. exsicc. ℥ss. Vin. Rhenan. generosiss. ℔ij. F. S. A. Vin. medicatum, Dos. ℥ij. ter de Die, vacuo Stomacho. BOERH. Or,

15. R. Raphan. rustican. Fol. Coch. hortens. Absinth. vulgar. Salv. Summitat. Centaur. min. & Genist. infundantur in Cerevisia forti pro Potu ordinario.

This Diet-Drink will sometimes cure an incipient Dropsy without Cathartics. Or,

16. R. Conserv. Coch. hortens. Absinth. Roman, an. ℥j. Extract. Gentian. Absinth. vulgar. & Centaur. min. an. ℥iij. cum q. s. Syr. e Cortic. Aurant. M. F. Elecluarium, de quo sumat ad Quantitatem Nuc. M. maj. mane, quinta pomeridiana, & vesperi, superbibendo ℥iv. sequentis Infusionis.

17. R. Rad. Gentian. ℥j. Summitat. Genist. Centaur. min. & Absinth. vulgar. an. M. j. Sem. Foeniculi & Petroselin, an. ℥ij. incis. minutim affunde Vin. Rhenan. ℔iv. stent simul in Infusione frigida, & coletur solummodo Tempore Usus.

When corroborating Medicines are used, Purging must be omitted, as also at the Time of using Lixivial Salts; but Strengtheners may be properly used with these last.

18. R. Rad. Raphan. rustican. ℥iij. Fol. Coch. Hortens. Absinth. Vulgar. Salv. Summitat. Centaur. Minor. & Genist. an. M. iij. Aurant. incis. No. iij. infundantur in Cong. vi. Cerevisia fortis non lupulati inter fermentandum. Sit pro Potu ordinario. SYDENHAM.

Dropsies

Dropsies sometimes supervene to the *bilious Fevers* of the *Camp* or *Marshy* Countries, when they have continued a long while, or by frequent *Relapses* bring on *Obstructions of the Liver* or *Spleen*. In which case the Swelling generally begins at the Feet, and rises gradually to the Belly.

But when the Belly alone is suddenly swelled, after the unseasonable Use of *Opiates* in the *Dysentery*, or of the *Bark* in *Intermittents*, the Distemper is a true *Tympanitis*. In this Malady, if the Patient is *feverish* or *full of Blood*, begin with Bleeding: *If not*, it will be sufficient to give every Night a small Dose of *Rhubarb*, just enough to keep the Body open, with a few Grains of the *Species Aromaticæ*; after the Swelling gives way, some strengthening Medicine is to be added, thus,

19. R. *Flor. Chamæmel.* ʒij. *contund. cum. Syr. Cort. Aurant.*
q. s. ut F. cum Zinziber. pulv. ʒij. *Chalyb. cum Sul. ppt.* ʒi.
cap. bis Die Mol. Nuc. Moschat. major.

All strong Physic and Carminatives, without Laxatives, are hurtful.

The *Ascites* comes on more slowly, and is generally accompanied with anasarcaous Swellings, a Paucity and Thickness of Urine. Sometimes the Fever goes off when the Swelling begins; at other Times it continues, or comes and goes in an irregular Manner. These Dropsies are *not to be cured by purging alone*, nor by Soap, nor Mercurials, but chiefly by *Lixivial Salts* in the Form of *Broom Ashes*, or Salt of Wormwood, or Salt of Tartar.

The common Method was this; about gr. xxx or xl of Salt of Tartar were dissolved in an Infusion of Wormwood, to which was added, Spirit of Juniper, and the Mixture was taken at three Doses, and repeated daily. The Patient had no other Medicine, except once in four or five Days ʒss. of *Pil. ex Colocynth. cum Aloe*, for a Purge; and, in the Decline of the Disease, some common Chalybeate.

Sometimes the *Diuresis* was promoted by swallowing Garlic or Mustard Seed: Tho' the *Ascites* was accompanied with a hard Tumour on the left Side of the Belly, lower than the false Ribs, nothing was done farther, unless fomenting the Part sometimes, or covering it with a warm Plaster. *Pringle.*

There is nothing cures the recent *anasarcaous Dropsy* sooner than *Calomel*, given to ten Grains at a Time, with proper Intervals, to prevent a Salivation, especially when assisted with a strong Decoction of Garlic, drank two or three Times a Day. The Quantity may be a common Drinking-glass full.

With regard to the *Paracentesis*, or Tapping, some Things must be premised, in order to judge when it will be convenient, and when not.

There are in reality but two kinds of *Dropsies*, the *Anasarca*, otherwise called the *Leucophlegmatia*, when the extravasated Water floats in the Cells of the *Membrana adiposa*; and the *Ascites*, when the Water occupies the Cavity of the *Abdomen*. In the *first Kind*, the Water is clear and limpid; in the *second*, more thick, gelatinous, and corrupted, and even sometimes mixed with fleshy Concretions. I purposely omit taking any Notice of the *Tympany*, or *flatulent Dropsy*, as I also do of the *Hernia Ventosa*, because it is certain that the *Ascites* and *Bubonocoele* have always been mistaken for these Diseases.

It is of no great Consequence to know whether the Water is shed by the Rupture of the Lymphatic Vessels, or by its oozing through their relaxed Coats; for it is certain that the Lymphatics have sometimes the Faculty of reimbibing the extravasated Fluid, and carrying it back into the Current of the Circulation, after which it is often entirely evacuated through some Emuncatory of the Body.

If any one doubts of the Possibility of a Cure when the Water is extravasated, let him inject a Pint of warm Water into the *Thorax*, or into the *Abdomen* of a Dog, through a small Orifice, and open him some Hours after, and he will not find a single Drop; which proves incontestibly that Liquors may be absorbed.

The Operation of the *Paracentesis* seldom cures the Disease; but Dropsies that proceed from an impoverished Blood, are less subject to a Relapse, than those which are owing to a precedent Disorder of the Liver. It is not uncommon to see *Dropsies* terminate happily, which are the Consequence of *Agues*, *Hæmorrhages*, or *Diarrhæas*; whereas those which are complicated with a *Schirrous Liver* will not admit of a Cure.

The Water contained in the *Abdomen* will determine, by its Fluctuation, whether the Operation is proper or not: For if, when you put one Hand on one Side of the Belly, and strike the opposite Side with the other Hand, no Undulation is perceived, you may conclude there is some Obstacle to the Evacuation.

It sometimes happens that all the Water, or great Part of it, is contained in small Bladders, called *Hydatides*, adhering to the Liver and the Surface of the *Peritonæum*; and the rest in Bladders of a different Size, some of which contain half a Pint or a Pint of Water. The Smallness of the Bladders renders the

the Operation useless ; but it is not hard to be distinguished, for there is no sensible Fluctuation. However, there are a few Instances of Persons being cured of this Disease by the *Paracentesis*.

If the Fluctuation is scarce sensible, except the Teguments of the Abdomen are much thickened by an *Anasarca*, it is probable the Liquor is gelatinous, and will not pass through a common Trochart ; therefore it will be necessary to have them of different Sizes. I once performed the Operation, when the Waters would not pass through a large Trochart, which obliged me to dilate the Orifice with a thick Sponge-Tent, and then there came out a prodigious Quantity of *Hydatides*, which were concreted and distinct, and which did not seem to me to differ from a *Polypus* formed in the Nose.

A *Dropsy of the Ovaries* in Women, which may be known from the Hardness and Inequality of the Tumour, seldom admits of the Operation, because the Water is generally deposited in a great Number of Cells, which are formed in the Body of that Part ; but sometimes it occupies but one or two of the Cells, and then if the *Ovary* is greatly enlarged, the Undulation will be plainly perceived, and the Operation may succeed.

When the *Ascites* and *Anasarca* are complicated, the Operation is but seldom convenient ; and the Water may with greater certainty be evacuated with Scarifications in the Legs.

If there is nothing which forbids the Operation, the Patient is to be placed in a Chair of a suitable Height ; let him join his Hands so as to press his Stomach ; then having dipped the Trochart in Oil, it must be thrust in an Instant through the Teguments ; then withdrawing the Perforator, the Water will pass through the *Canula*. It is generally performed on the Left Side, for fear of hurting the Liver, three Inches obliquely below the Navel.

If the Navel is prominent, a small Puncture may be made with a Lancet through the Skin, and the Waters will empty themselves speedily through the Aperture, without any Danger of a *Hernia*, whatever Authors have said to the contrary. Whether the Surgeon uses a Lancet, or a Trochart, to make the Puncture, he needs not fear hurting the Intestines, for the Mesentery keeps them out of the Reach of the Instrument. But sometimes, when the Water is almost all evacuated, it is stopped all of a sudden by an Intestine, or the *Epiploon*, in which Case it must be put back with a *Probe*.

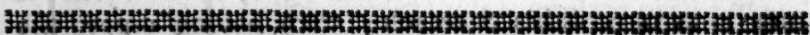
During the Evacuation, the Surgeon's Assistants must compress both Sides of the Belly, with the same Force as the Waters

ters themselves did, otherwise the Patient will be apt to faint; because the Vessels of the *Abdomen* being freed from their former Weight, the *Diaphragm* will sink down; and consequently the inferior Vessels will be more distended with the Blood, while the superior being suddenly emptied, the free Course of the Circulation will be interrupted.

For this Purpose, though the Hands will be sufficient during the Operation, yet afterwards there must be a Roller of Flannel, about eight Yards long and five Inches broad, which must be first swathed about the lower Part of the Belly, that the Bowels may better resist the *Diaphragm*. This Roller may be changed every Day, for three or four Days, in which Time the different Parts will have regained their natural Tone.

A little dry Lint, covered with a Plaister, will be sufficient for the Dressing; but it will be proper to put between the Roller and the Dressing a double Flannel, about a Foot square, dipt in Brandy.

Though this Operation may not cause a radical Cure, it may preserve the Patient's Life many Years, and render it very supportable, especially if the Waters do not gather again speedily. There have been some Patients who have never relapsed. And indeed the Operation is attended with so little Pain and Danger, that I cannot but recommend it as extremely useful. *Sharp.*



Of the HYDROCELE, or DROPSY of the Scrotum.

THE *Hydrocele*, called the *Dropsy* of the *Scrotum*, *Hernia Aquosa*, and the *Dropsy* of the *Testicle*, is an aqueous Tumour of the *Scrotum*. Though Authors mention several Kinds, there are but two. The first is, when the Water is contained in the *Tunica Vaginalis*; the second, when it is contained in the *Cellular Membrane* of the *Scrotum*. This last is almost always complicated with an *Anasarca*, a Kind of Dropsy which consists in the Extravasation of the Water, which lodges in the Cells of the *Membrana adiposa*. The *Hydrocele*, in this Case, is known without any Difficulty; for the Skin is shining and soft, yielding easily to a slight Impression, which will remain pitted for some Time; the *Penis* is also sometimes prodigiously swelled, by the Liquor which insinuates into the *Cellular*

Cellular Membrane. There are none of these Symptoms in the Dropsy of the *Tunica Vaginalis*.

In the Dropsy of the *Cellular Membrane* of the *Scrotum*, some recommend the Puncture with a *Trochart*; others, to make small Apertures here and there with the Point of a Lancet; others, to put a small Skane of Silk through the Skin with a Needle, and to let it remain as a Seton, till all the Water is drained off. But the two first Methods yield very little Relief, and the last may be more likely to induce a Gangrene. Nor is there Occasion for any Operation at all, because the cellular Membrane of the *Scrotum* is nothing but a Continuation of the *Membrana adiposa*; and therefore Scarifications, made in the Skin of the Small of the Legs, will effectually empty the *Scrotum*.

Yet sometimes there falls so great a Quantity of Water into the *Scrotum*, that the Distension is very painful, threatening a Mortification. Likewise the Prepuce very often is so excessively dilated and twisted, that it hinders the Patient from making Water.

In these Cases there should be an Incision made on each Side the *Scrotum*, three Inches in Length, quite through the Skin, into the Cells which contain the Water; and likewise two or three, half an Inch long, in any Part of the *Penis*, with a Lancet or Knife.

All this may be done without any Danger, and sometimes with such Success as to cure the Dropsy of the whole Body. Though I have performed this Operation on Patients in a very languishing Condition, yet as I made the Wound with a sharp Instrument, and afterwards treated it with Fomentations and soft Digestives, I never found a Gangrene ensue.

The Dropsy of the *Tunica Vaginalis* is caused by an excessive Accumulation of a Serosity, which is naturally separated in the internal Surface of that *Tunic* in a small Quantity, to moisten and lubricate the Testicle. Authors have hitherto distinguished them into two Sorts; the one on the Inside of the *Tunica Vaginalis*; and the other on the Outside, between that and the *Scrotum*, which they suppose to proceed from Water in the Dropsy *Ascites*. But Anatomy shews the Absurdity of this Opinion; for besides that Persons afflicted with this Kind of *Hydrocele* have seldom any other Dropsy; and those who have the *Ascites* are free from this *Hydrocele*; the *Tunica vaginalis* is, like a Purse, quite shut up on the Outside of the Abdomen, so that the Water cannot insinuate into it from any Part.

As to the Notion that the Water falls from the Abdomen into the Interstice, between the *Tunica vaginalis* and the *Scrotum*, it

is equally impossible. For though in the *intestinal Rupture* the Gut falls into this Place, yet it brings the *Peritonæum* along with it, and that will prevent the Egress of the Water. This is a Circumstance the Ancients were unacquainted with, and the Moderns have not sufficiently attended to.

This Disorder is seldom attended with Pain in the Beginning, contrary to what happens in the *Hernia* of the *Epiploon*, and of the *Intestine*; nor is it often the Effect of any Accident. It never diminishes when once begun, and generally continues to increase; but in some Persons not so quick as in others. In one Person it will grow to a very painful Distension in a few Months; in another, it shall not be troublesome in many Years; nay, shall cease to distend at a certain Period, and afterwards continue in that State without any notable Disadvantage. But this is rare.

In Proportion as it enlarges it becomes more tense, and then is said to be transparent; but this is not always the Case; for sometimes the *Scrotum* is very much thickened, and the Water itself opaque; so that to judge positively if there be a Fluid, we must be guided by feeling a Fluctuation: And though sometimes it is not very evident, yet we may be sure there is a Fluid of some Kind, if we are certain that the Distension of the *Tunica Vaginalis* makes the Tumour.

When a Gut, or the *Omentum*, form the Swelling, it is soft and pliable, unless inflamed and uneven in the Surface, and reaches from the *Scrotum* into the very *Abdomen*; whereas the *Hydrocele* is tense and smooth, and ceases before or when it arrives at the Rings of the Abdominal Muscles.

When the Testicle is encreased in Size, the Tumour is rounded, and if not attended with an Enlargement of the Spermatic Vessels, the Cord may be easily distinguished between the Tumour and the Abdomen; but without this, the Pain, or the very great Hardness, will discover it to be a Disease of the Testicles.

As to the *Cure*, I have found little Success either from inward Medicines or outward Applications; therefore it will be most adviseable to wait till the Tumour becomes troublesome, and then to tap it with a Lancet. If the Orifice of the Skin slips away from that of the Tunic, and prevents the Egress of the Water, you may introduce a Probe, and by that means secure the exact Situation of the Wound. When the *Tunica Vaginalis* is very tense, the Testicle itself cannot be easily distinguished; but there will, I think, be no Danger of wounding it, if you open the inferior Part of the *Scrotum*, and not with too

long

long a Lancet. During the Evacuation, the *Scrotum* must be regularly pressed; and after the Operation, a little Piece of dry Lint and sticking Plaister are sufficient. This is called a *Palliative Cure*, but it now and then proves an absolute one. It is dangerous to attempt a radical Cure by making a large Wound, either by an Incision or *Cautic*, and therefore that Method ought to be discarded. *Sharp*.

XX

Of the JAUNDICE.

THE *Jaundice* is a Disease which is principally discovered by the yellow Tincture of the Skin, but most distinctly in the Coats of the Eyes, where it gives the first Notice of its Invasion.

The *Symptoms* are Heaviness, Inactivity, Lassitude of the whole Body, Anxiety, Uneasiness about the *Hypochondria*, Sickness at the Stomach, Oppression in the Breast, difficult Respiration, a dry and harsh Skin, Costiveness, hard, white Excrements, yellow, high-coloured Urine, which will tincture Linen or Paper with a Saffron Hue; there is a bitter Taste in the Mouth, and all Objects seem to be discoloured. *Sydenham. Towne.*

The immediate *Cause* of a *Jaundice* is an obstructed Excretion of the *Bile* from the *Vesica Fellis* and Liver, into the *Duodenum*; which, being forced back upon the Liver, mixes with the Blood, by which it is carried into the whole Body, whence the Skin and Urine will be tinctured with the Colour of the *Bile*.

This Obstruction may be occasioned by any thing in the *Duct*, which plugs up the Passage, or by external Pressure closes its Mouth, or by a Spasm contracting the Fibres thereof. Hence we may conceive why the *Jaundice* succeeds the *flatulent Colic*, why pregnant Women are subject to this Disease, and why Spasms of *Hypochondriacal* and *Hysterical* Persons produce the same Effects. *Towne.*

Sudden Fright, the Generation of too great Plenty of *Bile*, schirrhous Tumours, or Ulcers of the Liver, Obstructions of the *Menses*, obstinate intermitting Fevers, and the Bites of venomous Animals, will also produce this Disease.

The *Prognostics* of this Disease differ with regard to the Patient's Age, Habit, Strength, and Constitution, as well as with respect

respect to the Virulence or Mildness of the Causes, and its Duration. When the Patient is young, and the Disease not complicated with any other, such as a *Quartan Ague*, the *Affectio Hypochondriaca*, or an *Obstruction* or *Schirrhus of the Liver*, and has not continued long, it is easily cured. But if after the Cure it frequently returns, with a *yellow greenish Colour*, and an Induration of the Liver, it generally terminates in a *Hætic* or an *Hæmorrhage*. A *Jaundice*, arising from violent Transports of Anger, or the spasmodic Stricture of the Intestines or biliary Ducts, caused by a drastic Purge or Emetic, is easily cured if taken in Time; but if encouraged by Grief, or the Body is weakened by a previous Disorder, the Cure is more difficult.

Emetics are highly proper in the Cure of the *Jaundice*, and yield speedy Relief, if the Disease does not proceed from violent Anger, Spasms of the Stomach, a *Cardialgia*, a *spasmodic Colic*, or a Stone lodged in the *Cystic Duct*, exciting a violent Uneasiness about the *Præcordia*. Yet I lately saw a Merchant, who was afflicted with a *Jaundice*, *Asthma*, and *Dropsey*, by taking an Infusion of the middle Bark of Elder, which worked him upwards and downwards, void thirteen Stones by Stool, of a triangular Shape. But when a *bilious Sordes* lodged in the *Duodenum*, and closing up the Orifice of the *Ductus Choledochus*, intercepts the Passage of the Bile; or when a tenacious, moveable, and not highly concreted, bilious Matter plugs up the *hepatic Ducts*, *Emetics* are of singular Efficacy in evacuating it. A Scruple of *Ipecacuanha*, with a Grain of *Tartar Emetic*, in a Draught of generous Wine, or in an Infusion of Manna, drinking Water-Gruel after it. *Hoffman*.

Likewise in this Case, after *Emetics*, *Cathartics* will be proper, compounded of *Albetics* and *Mercurials*; then *saponaceous Attenuants*, *Preparations of Tartar* and *Volatiles*; and last of all, *Chalybeates*. But take Heed not to give the last till the Humours are sufficiently attenuated, for otherwise an incurable *Schirrus* of the Liver may ensue.

And here I cannot but recommend the *Terra foliata Tartari*, otherwise called *Tartarum regeneratum*, [and by the College, *Sal diureticus*,] as the greatest Dissolvent, and the most powerful Remedy in this Disease. It dissolves the most tenacious Substances, and opens all Obstructions of the *Viscera*, and yet has no Acrimony, and may be safely given in the *Pleurisy* and *Dropsey*. I have experienced its Virtue a thousand Times in the Course of twenty Years Practice. *Huxham*. Its Dose is from five Grains to a Scruple, and upwards.

Saponaceous Medicines are often given for the same Intention in this Disease, with Success; thus :

R.

1. R. Sapon. Castiliens. $\mathfrak{z}$ ij. Rhei Pulv. Spec. Hier. Picr. an. $\mathfrak{z}$ ss. Syr. è Cor. Aurant. q. s. M. F. Electuarium. Cap. ab $\mathfrak{z}$ ss. ad $\mathfrak{z}$ j. bis in Die. Or,
2. R. Conserv. Aurant. $\mathfrak{z}$ ss. Cinnab. Antim. ppt. Sapon. Castiliens. an. $\mathfrak{z}$ ss. Millep. ppt. $\mathfrak{z}$ ij. Croc. pulv. $\mathfrak{z}$ ss. Syr. è Cort. Aurant. q. s. M. F. Elect.

After some time, with the above Precaution, may be added,
Limatur. Mart. $\mathfrak{z}$ ss. Or,

3. R. Gum. Ammoniac. $\mathfrak{z}$ ij. Scill. pulv. $\mathfrak{z}$ j. Sapon. Castil. $\mathfrak{z}$ ij. Sacchar. alb. q. s. M. F. Pilulæ ex singulis Drachmis, No. x. cap. iij. mane et hora somni. Or,
4. R. Crem. Tart. Coccinel. an. $\mathfrak{z}$ j. Sapon. Venet. $\mathfrak{z}$ ij. M. F. Pil. pro sex Dosisbus. Cap. unam bis vel ter in die. Or,
5. R. Sapon. Venet. $\mathfrak{z}$ ij. Croc. Sal. Mortis, Sal. Succin. an. $\mathfrak{z}$ j. Ol. Junip. gut. xij. M. F. Pil. pro viij. Dosisbus, cap. ut prius. Or,
6. R. Tart. Vitriolat. Croc. an. $\mathfrak{z}$ ij. Sal. Succin. $\mathfrak{z}$ j. Sapon. Castil. $\mathfrak{z}$ ij. Ol. Junip. gut. x. M. F. Pil. mediocres, Dosis v. bis vel ter in die. Or,
7. R. Millep. $\mathfrak{H}$ ss. infund. in Vin. alb. per dies iv. vel v. deinde exprime fortiter, & adde Croci $\mathfrak{z}$ ij. Sal. Mart. $\mathfrak{z}$ j. Sal. Succin. $\mathfrak{z}$ ss. post dies iv. cola pro Ufu. Dosis $\mathfrak{z}$ ij. ter in die.

These are Attenuants, which should be preceded with gentle Purgatives; for *Hoffman* affirms, that all drastic Purgatives are prejudicial, as they increase Spasms, throw the Blood into violent Commotions, and impair the Strength. Therefore, besides those which *Huxham* has directed above, the following *Formulæ* may sometimes be proper:

8. R. Rhei optim. pulv. $\mathfrak{z}$ ss. Crem. Tartar. $\mathfrak{z}$ j. Aq. Cinnam. sim. $\mathfrak{z}$ ij. Syr. Rosar. sol. $\mathfrak{z}$ ij. M. F. Haustus. Or,
9. R. Sen. $\mathfrak{z}$ ij. Rhei $\mathfrak{z}$ j. Sal. Tart. gr. xij. infund. in Aqua bullient. q. s. Colatur. $\mathfrak{z}$ ij. admisce Syr. Rosar. solut. $\mathfrak{z}$ j. Aq. è Cort. Aurant. $\mathfrak{z}$ ij. M. F. Haustus. Or
10. R. Rhei $\mathfrak{z}$ ij. Sal. Tart. $\mathfrak{z}$ j. infund. in Aq. bullient. q. s. Colatur. $\mathfrak{z}$ iv. admisce Syr. Rosar. solut. $\mathfrak{z}$ ss. M. F. Haustus.

When a Jaundice succeeds the Colic, all Purgatives are to be omitted, *Rhubarb* only excepted, and this is not to be prescribed without evident Reason. It generally disappears with-

out

out the Assistance of Medicines; but if it continues some Time, I generally use the following:

11. R. Rad. rub. Tinctur. & Curcum. an. ℥j. Chelidon. maj. cum toto, & Summitat. Centaur. min. an. M. j. coq. in æqualibus Partibus Vini Rhenani & aquæ Fontan. ad ℥xij. Colatur. dissolv. Syrup. pector. ℥ij. M. F. Apozem.

The Patient is to take half a Pint, Morning and Evening, till he recovers. But if the Jaundice comes on without any preceding Colic, then give any of the Purgatives above recommended once or twice before the Use of the Apozem, drinking a Glass of Rhenish Wine after it. Or the Patient may take the common Purging Potion, every fourth Day, during the Use of the following Things:

12. R. Conserv. Absinth. Roman. Conserv. flaved. Aurant. an. ℥j. Angel. condit. Nuc. Moschat. condit. Pulv. Ari comp. Chalyb. cum Sulph. ppt. an. ℥ss. Extract. Centaur. min. Extract. Gentian. & Crem. Tartar. an. ℥ij. Croci Ang. pulv. ℥ss. cum q. s. Syr. pectoral. F. Electuarium, de quo cap. ad Magnitud. Nuc. Moschat. mane & hora quinta pomeridiana, superbibendo post matutinam Dosis Aquarum Mineralium purgantium ℥iv. & post pomeridianam Dosis Apozem. preced.

If there are Signs of a Dropsy, let the Patient drink of the Apozem Morning and Evening.

Instead of the above Electuary, the following may be substituted:

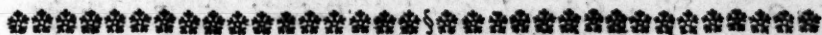
13. R. Conserv. Absinth. Roman. ℥j. Chalyb. cum Sulph. ppt. Rad. Curcum. pulv. an. ℥ij. Syr. & Cortic. Aurant. q. s. M. F. Electuarium. Or,
14. R. Rad. rub. Tinctur. Rad. Chelidon. maj. an. ℥j. Cort. interior. Berber. Summitat. Absinth. Roman. infund. in Vin. alb. ℥vj. Cap. Coch. iv. per se vel cum Electuario.

If the Disease will not yield to this Method, then Chalybeate Waters will be proper, such as those of Bagnigge, drank on the Spot. Sydenham.

In a stubborn Jaundice, I recommend Æthiops mineral, from often repeated Experience. Allen.

When a Jaundice is attended with an Hæmorrhage, it is always dangerous, because it denotes a most acrimonious, and dissolved State of the Blood; in which Case, Attenuants, Aloetics, Volatiles, and Chalybeates, are little better than Poison; whereas Acids, Diluents, Demulcents, and mineral Waters are very beneficial. Hemp-Seed, boiled in Milk, till it breaks, is often

often advantageous; the Dose is ʒv . twice a Day*. Or an Emulsion of white Poppy-Seeds and Sweet Almonds, after moderate Bleeding, if the Patient is feverish; and the Pulse will allow it) and gentle Purgings. I am in doubt whether moderate Bleeding is not as necessary in the *Hepatitis*, and consequently in an Obstruction of the Liver with a feverish Disposition of the Blood, as in the *Pleurisy* and *Peripneumony*; because it prevents Inflammations, Imposthumes, and *Schirrus*'s. *Huxham*.



Of the BILIOUS COLIC.

A *Bilious Colic* is chiefly attended with the following Symptoms; a hoarse Voice, a *Cardialgia*, a continual Loathing of Victuals, a vomiting of bilious, poraceous Matter, Hiccup, a feverish Heat, Inquietude, intense Thirst, a bitter Taste in the Mouth, and the Urine little and high-coloured. *Hoffman*. Add to these, a burning, acute, continual Pain about the Region of the Navel, (*Towne*;) which either seems to bind the Belly as it were with a Girdle, or is contracted into a Point, as if the Patient was bored through, which sometimes remits and then grows more violent. In the Beginning it is not so much determined to one Point, nor is the Vomiting so frequent, nor does the Body so obstinately withstand the Force of Cathartics. But as the Pain increases the more it is fixed to a Point, the Vomiting is more frequent, the Body more costive, till at length it terminates in the *Iliac Passion*. *Sydenham*. At this Time the Pain is so intense as to occasion a *Singultus*, a *Delirium*, Coldness in the Extremities, and chilling clammy Sweats, which are always a dangerous Omen in this Disease. *Towne*.

It is distinguished from a *Fit of the Gravel*, as the Pain in this lies in the Kidney, and is extended from thence by the Ureter to the Testicle; after Eating, the *Colic Pain* increases, the *Nepritic* abates; Evacuation upward or downward relieve the *Colic* more than a *Fit of the Gravel*. The Urine in the latter is more clear and thin at first, afterwards there is a Sedi-

* *Floyer* directs it thus: Take a Handful of *Hemp-Seed*, and boil it a Pint of Milk, sweeten and strain it; use it nine Mornings, it purges and opens. Or thus,

Boil four Ounces of *Hemp-Seed* in two Quarts of Ale, sweeten and give half a Pint for divers Mornings. Use several Quarts of this as an approved Medicine for the *Jaundice*.

ment, and at length Gravel or small Stones; whereas in the Colic, the Urine is more thick in the Beginning.

Bleed freely in the Arm, and after three or four Hours exhibit an *Anodyne*, and the next Day a *gentle Cathartic*, which may be repeated every other Day, to the third Time. *Sydenham*.

The safest Way will be to mix Opiates and Cathartics together, thus:

1. R. *Extract. Cathart.* ʒss. *Extract. Thebaic.* gr. j. *Ol. Caryophyl.* gutt. ij. *M. F. Pel.* v. Or,
2. R. *Pil. ex Colocynth. simp.* ʒss. *Calomel.* ʒj. *Extract. Thebaic.* gr. iſs. *Ol. Caryoph.* gutt. ij. *M. F. Pil.*

During the Operation of these Pills, the Patient must drink Water-Gruel with *Manna* if the Vomiting will permit. After it is over, an Opiate will be proper: This Method should be repeated till there is Reason to believe the acrimonious Matter is entirely evacuated. After the Recovery, it will be proper to give three Spoonfuls of the *Vinous Tincture of Rhubarb*, at least twice a Week for a Month following. *Towne*.

Sydenham recommends Riding, especially when the Cure is only palliated with Opiates; *Towne*, to the Natives, sailing round the Island of *Barbadoes*, as an excellent Expedient to procure a perfect Recovery.

When there has been any preceding Illness which required copious Evacuations, *Sydenham* begins the Cure with *Opiates*. He thinks *carminative Glysters* only exasperate the Disease: But when the Patient has been fatigued with an injudicious Handling of the Disorder, and is almost spent, he allows the Use of *Aqua mirabilis*, or some such Liquor, as likely to be of the best Service.

If the Disease is caused by a plentiful Eating of Summer-Fruits, he would have the Patient drink Posset-drink plentifully, then take an *Anodyne*, bleed the next Day, and then proceed as above directed.

Potter, in the *Med. Essays*, says, it is evident from Observations, that this Disease is attended with a *Stricture*, which has sometimes entirely shut up the Passage downwards, as if the Intestines had been strongly girt round with a Ligature. And tho' by *Bleeding* the Tension of the Bowels is eased, a Revulsion made, and an Inflammation prevented; tho' *brisk Cathartics* are proper to urge forward the obstructed, acrid, morbid Matter; tho' by subsequent *lenient Medicines* the Operation of the former is forwarded with less Violence; and tho' by *Anodynes* a Suspension of Pain may be procured, and the convulsive

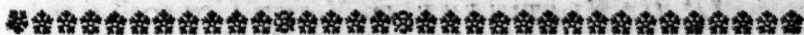
convulsive Contraction of the Intestines may be diminished; yet the Disease sometimes eludes the Effort of this Method; nor will Clysters help the Misfortune at all; for they cannot pass beyond the Valve of the *Ilium's* Entrance into the *Cecum*. Therefore Recourse must be had to a *warm Bath*, prepared of an emollient Decoction, which will be an universal *Forus* to the lower Trunk of the Body: And he is persuaded, from Experience, that many an *Iliac Passion* might have been prevented by an early Conjunction of the *warm Bath* with the other Method of Cure.

Russel observes, that when the *Colic* proceeds from Costiveness without a Fever, then a Pint of Sea-Water, drank every Morning, will cure it. But if the first Onset of the Disease is neglected, and it proceeds to an Inflammation, with a Fever, Vomiting, and Retention of the Excrement; and there is Reason to be apprehensive of the *Iliac Passion*, when black Vomiting supervenes, and the *Fæces* are thrown up by the Mouth; as also when there is a quick weak Pulse and cold Sweats supervene, then the Patient will be carried off by a Mortification. Sometimes, after the Rigors, *Pus* will show itself in some Place or other, which prevents immediate Death, while a purulent *Tenesmus* afflicts the unhappy Patient.

All *resinous*, *aloetic*, and *scammoniac* Purges, with *Calomel*, are to be rejected in the *Inflammatory* State of this *Colic*; and, after Bleeding freely, the following *Bolus* is to be given, which has been used with great Success.

3. *R. Tartar. vitriolat. ℥ij. vel 3j. Salis Tartar. gr. viij. vel ℥ss. Ol. Nuc. Moschat. essent. gut. j. Elect. Lenitiv. q. s. M. F. Bolus quartâ quâque Horâ sumend. donec Alvus libere defecerit.*

Two or three Doses, in the most obstinate Cases, are generally purgative, and then all Danger is over; after which Sea-Water, taken every other Day, will prevent the Return of the Inflammation. When the Case requires it, a *Semicupium* may be directed before the Use of the Cathartic.



Of the HYSTERIC COLIC.

THIS is a common Symptom of the *Hysteric Passion*, and is attended with a most violent Pain about the Pit of the Stomach, as also with a Vomiting of the greenish Humour, and

a great sinking of the Spirits : After a Day or two the Pain goes off, but upon the slightest Motion or Perturbation of the Mind, it soon returns again.

Neither *Bleeding* nor *Cathartics* have any Place in the Cure, for they exasperate the Distemper ; nay, the most *gentle Clysters* are prejudicial : For this Disease seems rather to proceed from a Disorder of the Spirits, than from a Fault of the Humours. It will be proper first to advise the Patient to drink upwards of a Gallon of Posset-Drink, to clear the Stomach of its Impurities, by throwing it up again, that the Effects of the Purgative may not be hindered. Afterwards give twenty-five Drops of the *Thebaic Tincture*, in ℥j. of *Aq. Cinnam. spir.* This last is to be repeated, at due Intervals, till the Symptoms disappear ; that is, the Effect of one Dose must be known before another is given. Yet sometimes, in *Plethoric Bodies*, if the Strength will permit, it is better to prepare the Way by Bleeding and Purg- ing, or both, for an *Anodyne*.

But if the *Hysteric Colic* comes by Fits, the following things may be used in the Intervals, or when the Fit is off :

1. R. *Zedoar. subtilis. pulv. ʒj. cum. q. s. Syr. à Cort. Aurant. F. Bolus sumendus mane & sero per xxx Dies, superbibenda sequentem Infusionem :*
2. R. *Zedoar. incis. minutim ʒss. Vin. Canar. ℥iv. infundantur frigide per xij. Horas. Deinde calentur pro Usu.*

Or the Patient may take large Doses of the *Balsam of Peru*, that is, twenty, thirty, or forty Drops in a Spoonful of the finest and whitest Sugar. This may be taken twice or thrice in a Day.

Sometimes this *Colic* is succeeded by the *Jaundice*, which generally disappears of itself. But if it continues long, it should be treated with Remedies proper for this Disease. But no other *Cathartic* besides *Rhubarb* should be made Use of. SYDENHAM.

Of the FLATULENT or WIND COLIC.

IF there is a fixed and tense Pain in the *Right or Left Hypochondrium*, or beneath the Stomach, it is a certain Sign that there is *Wind* or Excrements pent up in the *Flexures of the Colon*. If the Pain is in the small Guts, the *Abdomen* will be wonderfully swelled and puffed up ; and the Force of the Wind is often so great, and it distends the Skin to such a Degree, that the

the Pain is exasperated merely by touching it; nor do there want Instances of a Navel-Rupture arising therefrom. The Pains are very acute, the Body extremely costive, there is a Sense of a very great Straightness or Contraction, and if the Stomach is inflated, the Breathing becomes very difficult, and the Eructations are attended with some small Relief. Afterwards there are *cardialgic Passions*, and an ineffectual Reaching to vomit.

If the Disorder lies in the *Flexures of the Colon*, *emollient* and *discutient Clysters* will be proper, as also *carminative* and *emollient Liniments* applied to the pained Part.

1. R. Chamamel. M. ij. Summitat. Centaur. min. Pug. iv. Sem. Anisi, Carui, Cumin. Fœnic. an. 3j. Coq. in Aq. Fontan. ℥jss. Colatur. adde Syrup. ex Althæa ʒjss. Ol. Anisi. ʒij. Sal. Gem. ʒiij. M. F. Enema.

The following Fomentation may also yield Relief:

2. R. Flor. Chamamel. ʒij. Bacc. Junip. Lauri, an. ʒj. Coq. in Aq. & Vin. Maderens. an. ℥ij. addend. sub finem Coctionis Sem. Fœnic. Carui, Anisi, Cumini, an. ʒss. Colatur. adde Spir. Vin. ℥j.

When the Body is opened by this Means, it will be beneficial to give some lenient Purge, as *Manna*, *Cream of Tartar*, *Terra Foliata Tartari*, with a Spoonful or two of Oil of Sweet Almonds.

If the *flatulent Colic* arises from a Weakness of the Stomach and Intestines, from Indigestion, from crude windy Aliment, then *Carminatives* and warm Remedies will be useful.

3. R. Cort. Aurant. extern. siccāt. ʒiv. Cal. Aromat. Galang. Bacc. Lauri, an. ʒj. Cinnam. Sem. Cymin. an. ʒss. M. F. Pulvis. Dosis ʒj. in Vino sumendus. Or,
4. R. Pulv. Flor. Chamamel. Sem. Anisi. an. gr. xv. Rad. Angel. Hispan. Zedoar. Cinnam. Pulv. an. gr. vi. Ol. Carui, gut. ii. Extract. Thebaic. gr. i. M. F. Pulvis, Hora Somni sumendus.

Likewise the following Mixture is very useful in a *flatulent Colic*:

5. R. Aq. Fœnicul. Aq. Cort. Aurant. simp. an. ʒiv. Aq. Junip. compos. ʒiv. Spir. Nitr. dulc. ʒiss. Syr. e Cort. Aurant. ʒi. M.

While the Pain is violent give a Spoonful of this Mixture every Hour; when it remits a little every two Hours. The Infusion of *Chamomile Flowers* and *Tarrow*, in the Manner of

Tea, being frequently drank, is very powerful in easing these Pains.

It will be also beneficial to apply hot Bricks or Tiles to the Part affected; also Bags with parched Oats and Carminative Ingredients, as Carraway-Seeds, Juniper and Bay-Berries, with decrepitated Salt. A Clyster of the Smoak of Tobacco, blown through a Pipe into the *Anus*, is reckoned an excellent thing. And I have known Peasants, who have been subject to most violent Colic Pains, relieved instantaneously by swallowing the Smoak.

When indurated *Fæces* plug up the *Intestinum Rectum*, so that the *Wind* and *Scybals* can make no Exit, then the *Anus* is to be fomented with emollient Decoctions; and saline Suppositories, with Fat, are to be used; also some Ounces of Linseed Oil, with an emollient Decoction, in which *Venice Soap* has been dissolved, are to be injected as a Clyster. HOFFMAN.

Of the COLIC from FUMES of LEAD.

THIS is a Disease to which all Workers in Lead are subject, and is attended with an intolerable Pain in the Intestines, and a most costive Body; the Navel is drawn inward; there is the highest Inquietude, and the Contraction of the Joints, attended with a Nausea, and a constant Reaching to vomit. It is apt to terminate in a *Paresis* (a Kind of Palsy,) or *spasmodic Asthma*, and afflicts the Patient a long Time. It is sometimes owing to the Rashness of *Medicasters*, in giving Preparations of Lead in the *Gonorrhœa*, and other Distempers.

There is no better Preservative against this Disease, than by taking fat Broth in a Morning; the Cure is to be attempted with *Oleous Clysters*, and a plentiful Use of Oil of Sweet Almonds taken by the Mouth, with or without a Solution of *Manna*, by which the desired End will generally be obtained. For the Cure for the *Paresis*, Baths of Sweet Water are necessary; after which the Spine of the Back must be anointed with a Liniment made of the Fat of a Hog, expressed Oil of Nutmegs, *Ol. Hyosciani*, Saffron, and Oil of Rosemary, which is a speedy and a certain Remedy. HOFFMAN.

This Disease is called *Mill-Reek* by the Miners at *Lead-Hills* in *Scotland*, which all the Inhabitants there are subject to; but *Melters* of Lead have it with the greatest Violence.

In the slighter Stage of it there is an Uneasiness and Weight about the Stomach, particularly near the *Cartilago Ensiformis*, and

and sometimes it is like a Colic in the Intestines. The Spittle of the Patient is sweet, and inclining to a blueish Colour, resembling that of a Person who chews Lead. The Pulse is lowish, and the Skin is all over cold, with frequent clammy Sweats. The Legs become feeble, with a pricking Numbness, and the whole Body is lazy and feeble. Sometimes a spontaneous *Diarrhoea* carries off the Disease; but if it continues long, it is very prejudicial. During this Stage the Patient is able to work.

When these Symptoms continue long, and spirituous Liquors are drunk on an empty Stomach, or after the working of Lead, the *second Stage* comes on; and then there is a fixed Pain in the Stomach and Guts, especially in the lower Part of the Belly, extending from one Hip Bone to the other, with Costiveness, and a gnawing Pain. The Pulse then becomes weak, and the Skin hot. There is likewise a Giddiness, and a violent Pain in the Head, which is succeeded by an Insensibility, and a Delirium of the worst Kind; for they bite their Hands, and tear their own Flesh. Then their Extremities tremble with Convulsions, and at length they sink, with an intermitting Pulse, and die of a *Coma*, or *Apoplexy*.

The Smoke or Fumes of Lead turn the adjacent Grass blue, hurt the Water, kill Birds in the Air, Beasts in the Field, and affect Dogs in the same Manner as Men. These last, when they cannot rise, will tear up the Ground they lie on.

If proper Medicines are given in the first Stage of the Disease, the Patient generally recovers. If it proceeds till the Giddiness comes on, the Success is doubtful; but after that it almost always proves mortal.

Workers in Lead should never go to their Business fasting, and their Food ought to be oily or fat. A Glass of Sallad Oil, with a little Brandy, Rum, or other Spirit, is a good Morning's Draught, but Spirits alone should never be taken while at Work, nor immediately after it. Physick should be taken Spring and Fall, and no Man should go into the cold Air while hot with Labour, and they should change their Working Cloaths for others as soon as possible. Liquid Aliment is best, such as fat Broth with good Meat; for low Living is bad. They should now and then go a little way out of the tainted Air.

If the Patient is plethoric, the Cure is to be begun with Bleeding, and then the *Primæ Viæ* must be cleansed with a double Dose of Emetic Wine, or Emetic Tartar, otherwise it will have no Effect. They will even bear half a Dram of *Vitrum Antimonii* in fine Powder, with Plenty of warm Water during the Operation. If the Vomit works well upwards and downwards, the Patient is in a fair way of Recovery. Then a milder

374. *Of the Colic of the Damnonii, or Devonshire.*

Dose of *Ipecacuanba* must be given with *Tartar Emetic*. If the Dose does not work either way, he is generally the worse for it, and a stronger Dose should be given soon after. If it vomits but does not purge, an *Antimonial Cathartic*, or *Jalap* and *Mercury* should be exhibited in a larger Quantity than ordinary, and then the Patient should drink plentifully of warm Broth. The Vomits and Purges should be repeated at proper Intervals, till the Disease disappears. If they work too much, an Opiate may be given at Night, but with Caution, for fear of rendering the Patient costive, which is the worst thing that can befall him. When Purgatives do not operate sufficiently, emollient, laxative, and anodyne Clysters must be injected frequently to empty the Guts.

When Blood and Matter is voided with the Fæces, Emetics and Purgatives must be forborne, till healing, balsamic, and laxative Clysters, with mild Food, cause these Appearances to cease. When the Belly is much swelled, emollient Fomentations should often be applied thereto. But if the Madness is begun, the Patient should be kept as quiet as possible during the little Time he has to live.

In some, when the Complaint of the Bowels is gone, there is a pricking Pain and Feebleness of the Legs, not unlike a Rheumatism, and then they must be rubbed with a coarse Cloth, or Flesh Brush. If that fails, embrocate the Part with Nerve Ointment, mixed with Oil of Turpentine, before the Fire. When the Pains are violent, and the Feebleness resembles a Palsy, Blisters must be applied to the Part over the large Nerves, and Medicines for the Palsy must be given inwardly. If the Patient is emaciated with a Hætic, and with a Giddiness in the Head, talking idly, he should ride every Day, and take Bitters with the Bark and Steel: If the Giddiness continues, *Myrrh Pills*, with a small Proportion of *Camphire*. WILSON.

Of the COLIC of the Damnonii, or Devonshire.

THOUGH this seems to be a local Disorder, yet, according to the Author's own Opinion, the Method of curing it will give an Insight into the Cure of the *Dry Gripes*; and I will venture to add, that it will yield no small Assistance to the judicious Treatment of Colics in general, especially the *bilious*.

This Disease was *epidemical* in *Devonshire* and *Cornwall* in 1724, and returns every Year, more or less, in the *autumnal Season*.

It begins with *extreme Anguish* at the *Stomach*, and a violent Pain in the *Epigastrium*. The *Pulse* is weak and unequal, the *Sweat* a little coldish: In the mean Time the *Tongue* is covered with a greenish or dark brown *Mucus*, and the *Breath* is intolerably offensive.

This State is immediately followed with an *enormous Vomiting*, generally of Bile intensely *green*, but sometimes *black*, accompanied with a large Quantity of *prodigiously acid* and *extremely tenacious Phlegm*. Nay, the Filth thrown up was often so very sharp, as to excoriate the Throat and *Fauces*, being tinged with Blood, and so rendered the Swallowing painful.

These Symptoms continuing for a Day or two, the Body became *very costive*, nor could be moved by drastic Purges, nor the sharpest Clysters; the first being thrown up by Vomit, and the last voided without Excrements, or Wind.

As the *Vomiting* began to abate, the Pain descended lower, violently tortured the *umbilical Region*, and cruelly affected the *Loins*, and the *Spine of the Back*, imitating a Fit of the Gravel, especially as the Urine was suppressed, and as there was a continual Inclination to make Water, and also, as there was a Sense of Weight in the *Perinæum*, like a Stone.

The *Urine* was like a *Lixivium*, with a red, mucous, and not seldom a greenish, copious Sediment. The *Abdomen* was generally puffed up to such a Hardness and Tensity, that the Patient was afraid it would burst. But some had it so contracted with Spasms, that the Belly lost its usual Form. This was seldom. There was often a *fixed, violent, burning Pain*, with a Tumor and Hardness in the right *Hypochondrium*. In the *Epigastric Region* there was, frequently, a great and troublesome Pulsation.

Whenever there was a *natural* or a *forced Stool*, it consisted of *Scybals*, which were of a greenish black, round and small, like *Sheeps Dung*; after two or three Dejections, they were sometimes mixed with Blood, exciting a most troublesome *Tenesmus*. If some Hours after a Stool was again provoked by Art, the Excrements were still of the same Kind, that is, round, smooth, and exceeding hard.

This was the *first Face of the Disease*; but though there was a small Cessation of the *Golic Pains*, yet the Skin was so tender, it would not bear to be touched. And now the Pain extended itself along the whole Spine of the Back, to the Tops of the Shoulders, with great Torment, especially about the *Shoulder Blades*: Then it proceeded to the Arms, and chiefly afflicted the Joints, taking away the Use of the Hands. Nor were the Thighs and Legs in a much better Condition, for the excruciating

ating Pain seemed to penetrate to the very Marrow, not unlike the *Lues Veneræ*, but without Redness or Tumor.

While the morbid Matter was making its Way from the Intestines to the Members, the Pulse was stronger, and the Patient feverish, at which Time some grew delirious, the certain Sign of which was, the Urine being somewhat limpid; and if the Urine had been pale, and without Sediment, through the Course of the Disease, the Patient was suddenly seized with *Convulsions*, or a *Delirium*, or a Palsy of the Hands; sometimes with, and sometimes without Pain.

When the Disease had taken Possession of the Joints, a plentiful, fetid Sweat, of an acid Smell, abated the Pains, and if any thing of the Colic yet remained, it now entirely ceased. Some were so wasted with a long, profuse Sweat, that they lost intirely the Motion and Use of their Hands, the Sense of Feeling only remaining.

Sometimes the Sweat was attended with the Appearance of many red, itching Pustules, throughout the Body, which often were of a burning Nature, and very troublesome: This was a good Omen, for then the Colic and Rheumatic Pains ceased; and this was the best Exit of the Disease. But it was more common for the *Rheumatism* and Colic to appear and disappear by Turns.

Sometimes the Pains would cease for some Days, and then return, after a slight Cold, or drinking Beer or Cyder. If a Jaundice appeared, the Colic would vanish; and when the Jaundice went off, the Colic returned. But if a real Jaundice continued, it quite terminated the Disease, except a little Uneasiness in the Joints.

Though the Colic Pains most commonly preceded the *Rheumatism*, yet it frequently seized the Joints first, from whence it was translated to the Stomach and Intestines, as above.

A very few, who had long struggled with the Disease, were seized with *Epileptic Fits*, and then died: And it is wonderful there were so few Victims to this dreadful Malady. It raged most when the Wind blew from the North-East. Those who were naturally costive suffered most. As the Spring came on, it gradually disappeared.

This Disease was owing to the prodigious Plenty of Apples that Year, which furnished the Inhabitants with vast Quantities of Cyder; this being drank new, and perhaps sometimes unfermented, it was no Wonder such Consequences proceeded therefrom.

Bleeding was generally prejudicial, but Vomiting advantageous; I therefore prescribed thus:

Of the Colic of the Damnonii, or Devonshire. 377

1. R. Rad. Ipecacuanh. ℥j. vel ʒss. Sal. Abstmh. ʒss. coq. ex Aq. Fontan. ʒiv. ad ʒij. dein coletur decoctum, cui adde Aq. Junip. comp. Syr. e Spin. Cervin. an. ʒss. M. F. Potio emetica.

To promote the Working, I let the Patient drink plentifully of Chicken-Broth, or, which I like better, an Infusion of Sage and Chamomile Flowers. When I would have the Emetic stronger, I added a few Grains of Tartar Emetic, or a Spoonful or two of antimonial Wine.

This is to be repeated every other Day, sometimes to the fourth Time; to clear the Stomach of the large Quantity of viscid Phlegm, and to shake and vellicate the adjacent Parts, in order to dislodge the stagnant Humours.

When the Operation is over, which by the Help of an Opiate is soon effected, we must proceed to Cathartics, which must always in these Cases be joined to Opiates.

2. R. Pil. ex Colocynth. cum Al. ℥j. vel ʒss. Calomel. ʒss. Extract. Thebaic. gr. j. Ol. Caryophyl. gut. j. M. F. Pilula. Or,
3. R. Rad. Jalap. pulv. ℥j. vel ʒss. Spec. Aromat. gr. viij. Calomel. ʒss. Syr. e Spin. Cervin. q. s. M. F. Bolus.

[This is a safer and more suitable Purge:]

4. R. Tartar. Vitriolat. ʒj. Sal. Tart. ʒss. Ol. Nuc. Moschat. essent. gut. j. Len. Electar. q. s. M. F. Bolus quartâ quâque horâ sumend. donec alvus libere dejecerit.

Two or three Hours afterwards, I order an Infusion of Sena, or a Solution of Manna, or something of that Kind; to these I sometimes add Oil of sweet Almonds, or Sallad Oil, unless it is offensive to the Stomach. I increase and repeat the Dose of these as the Symptoms require; by these Means the Pain is eased, the Intestines are relaxed, and gently stimulated to discharge their Contents, as well as rendered slippery by the Oil.

But if these Things will not pass, I order an emollient Fomentation for the whole Abdomen, especially when the Belly is puffed up and hard, or contracted with Spasms.

5. R. Rad. Altheæ, Sem. Lin. Sem. Fœnugrec. an. ʒiij. Flor. Chamæmel. M. iij. Cap. Papav. alb. ʒiv. Coq. ex Aq. Fontan. & Laet. dulc. an. Part. æqual. F. Fetus.

But much happier Effects may be expected from a Semicupium, or Bath, of the same Ingredients, as every one will judge who has seen what extraordinary Advantages have accrued from emollient Baths in Fits of the Gravel; for I have seen them terminate a Paroxysm when the usual Methods were tried in vain.

It

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It sometimes happens that the *Fæces* are exceeding hard, and lodging in the Valves of the Colon hinder the Wind and Excrements from making their Exit; which occasions most grievous Pains, especially when the Intestines are irritated with Purges. Wherefore, after a few Hours, if the Purge does not work, I order an *oleous and emollient Clyster*, to render the Intestines slippery, and the *Fæces* more soft. Afterwards, if there is Occasion, a *sharper Clyster* may be given.

[6. R. *Vin. Canar. Ol. Lini, an. ʒvj. Ol. Succin. ʒfs. M. F. Enema. Or,*

7. R. *Juscul. Carn. Vervecin. vel Vitulin. Ping. ʒviij. Ol. Amygd. ʒiv. Sacchar. ʒj. M. F. Enema. Or,*

8. R. *Laet. recent. ʒviij. Ol. Sambucin. ʒiv. Pulp. Cass. ʒj. M. F. Enema.]*

If any Disease requires frequent Purging, it is this, for which Reason, *lenitive Cathartics* are to be continued for some Days; such as *Rhubarb, Pilul. Ruffi, Tinctura sacra*, to which now and then may be added a few Grains of *Calomel*. *Venice* or *Cyprus Turpentine*, dissolved in the Yolk of an Egg, and mixed with some *Cordial*, is a proper Purge, as well as efficacious against the Rheumatic Pains.

9. R. *Terebinth. Venet. in Vitel. Ovor. N^o. ij. solut. ʒj. Ol. Caryophyl. gut. ij. Sensim admisce Syr. Caryoph. rub. ʒiv. Vin. Malacens. ʒfs. Dosis ʒij.*

In the mean time *Anodynes* are to be given with a liberal Hand, for the excessive Pains are not otherwise to be appeased. As to the Dose of an *Opiate* in this Case, nothing certain can be determined, for that which composes one Patient to sleep, will throw another into a pleasing *Delirium*. [Therefore it will be most prudent to begin with small Doses at first, and repeat them at proper Intervals till the desired End is obtained: Thus,

10. R. *Tinctur. Thebaic. gut. lxx. Syr. à Mecon. ʒvj. Aq. Cort. Aurant. simp. ʒiv. Aq. Junip. compof. ʒij. M. sumat. Coch. j. omni semihora donec sopiatur Dolor.]*

It will be likewise necessary to dilute the *saline Acrimony* of the Blood; for this Purpose Water is the best Dissolvent, and especially that of *Pyrmont* or *Spaw*, for these not only dissolve the Salts, but restore the due Temperament of the Blood, and the Tone of the Fibres.

When the Blood is diluted, it will be convenient to promote Sweating, which will be best done by *Laudanum* and *Camphire*,
and

and drinking plentifully of the hot Infusion of *Rosemary* or *Sage*, or, if more agreeable to the Stomach, *Sack-Whey*.

Those who have observed the sharp, fetid Sweats corroding the Cuticle, will not wonder that *Colic* and *Rheumatic Pains* should be eased by *Sweating*, it being the Road pointed out by Nature.

After *Sweating*, the Chalybeate Waters are again to be repeated, not forgetting now and then a Dose of *Rhubarb* or *Tinctura sacra*; likewise *Testaceous Powders*, with Salt of *Wormwood*, but more especially *Lime-Water* tinctured with *Stomachics*, which destroys the Acid in the Blood as well as in the *Prima Via*.

When the *Rheumatic Pains* have invaded the Joints, then *Cinnabar*, *Gum Guaiacum*, *Tincture of Antimony*, and *Terebinthinate Potions* are useful, as well as against *paralytic Affections*: But above all, *Calomel*, eight or ten Times sublimated, now and then repeated in small Doses, that is, two or three Grains at a Time, is a noble Remedy against this and many other Diseases. To the *Calomel* I often add a little *Camphire*, by which Means it penetrates into the minutest Canals of the Body. I have likewise lately experienced the Virtues of *Mercurius Alkalizatus* * in this Case, which is a most safe Preparation.

When there are excruciating, obstinate, *Rheumatic Pains*, especially between the *Scapulae*, a *Blister* will be necessary, which will contribute greatly to prevent or cure the Palsy. The *Paralytic Members*, and the whole *Spina Dorsi*, are to be rubbed with the *Galbanetum Paracelsi*, or rather the *Balsamum Galbanetum* of *Hartman*. It is also a useful Remedy when the Belly is greatly extended, or contracted with Spasms.

* I mentioned this before as an Invention of *Dr. Burton*; but I find it also in *Astruc*, under the Title of *Aethiops Alkalizatus*, or *Absorbens*. He adds, if *Mercury* be mixed or extinguished with *Balsam of Peru*, or *Cajupi*, or of *Canada*, it is an *Aethiops antiphthificus*; if with *Gum Guaiac*, *antirheumatic* or *antiscorbutic*; if with *Manna*, or *Resin of Jalap*, it is a purgative *Aethiops*; if with *Gum of Juniper*, or *Sal Ammoniac*, it is *diuretic*; to which I may add, with *Plummer*, that with *Sulphur of Antimony*, it is excellent against *Defecations of the Skin*. And here it may not be improper to observe, that *Huxham* looks upon *Riverius* as the first who joined *Opiates* with *Cathartics*, in the *Colic*; whereas they were so given long before, as may be seen in *Stocker's Praxis Aurea*, under the title of *Pilula experta in Colica*, where he prescribes one Dram, or four Drams of *unwashed Aloes*, with a Grain or two of *Opium*, and likewise of *Saffron*, or *Castor* instead of *Saffron*, made into eight or nine Pills, and given on an empty Stomach: It eases the Pain in an Hour, and purges safely. To make it brisker, add two or three Grains of *Scammony*. This gained him great Reputation.

When

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When the Colic and Rheumatic Pains have ceased for a while, then a more plentiful Diet may be used, more particularly *Jellies of Sago, Hartsborn, or Calves Feet, poached Eggs, and such like*, which will be useful through the Course of this Disease. But the Drink must be *Water, or Spaw-Water*, with now and then a little Wine mixt with it.

To restore the due Temperament of the Blood, and to strengthen the *Viscera*, I often use the following Infusion:

II. R. *Rad. Gentian. Galang. an. ʒss. Zedoar. Calam. Aromat. Cort. extern. Aurant. succ. an. ʒijss. Caryophil. ʒij. Chalyb. cum Tartar. ppt. ʒij. Hicce affunde Vini albi Olij-sipon. ℥ijss. Aq. Cort. Aurant. Spir. Aq. Sem. Cardam. Aq. Junip. comp. an. ℥ss. P. Infusio clausa per Dies saltem xij. in Vase vitreo, id sæpe agitando.*

The last Assistance is *Riding*, which, by shaking the whole Body, promotes the Circulation of the Fluids, and especially through the Mesenteric Vessels, where the Motion of the Blood is most slow, and by that Means dissolves the stagnating Humours, and opens the Obstructions of all the *Viscera*. Hux.

Baker says, the earliest Account of the *Devonshire Colic* is *Musgrave's*, in his Book *De Arthritide Symptomata*, which he represents to be the Effect of crude and sharp Cyder, making no mention of those essential and pathognomonic Symptoms, by which it is at this Time distinguished. Are we to suppose, (adds this Gentleman,) that when *Musgrave* lived, it had not been observed to terminate in a Palsy or Epilepsy? That he was well acquainted with a Disease very similar to this, the Colic of *Poitou*, is very certain, as he mentions the Case of a Gentleman, who, in the Flower of Age, became Paralytic from that very Colic. Possibly, indeed, *Musgrave* might not have seen the Colic in its extreme ill Effects, which he mentions as peculiar to drinking Cyder; Orchards were then but few in his Neighbourhood. *Huxham* says, that in 1739, there was ten Times more Cyder made and drunk in the Country, than for thirty or forty Years before. *Huxham's* Description of this Malady is very full; but it does not appear that he begun to make Observations on the Air and epidemic Diseases till 1728, four Years after the remarkable epidemic Colic of *Devonshire*.

Baker, considering that this Colic is precisely the same Disease which is the specific Effect of all saturnine Preparations, and that there is not the least Analogy between the Juice of Apples and the Poison of Lead, thinks it improbable that two Causes, bearing so little Relation to one another, should make such similar Impressions.

But

But Lead itself being certainly of such a Nature, as to be abundantly answerable for all the ill Effects of Cyder, he was induced to the Search of it. He found, on Enquiry, that the Disease is very common all over the County, but particularly infests those Parts where the most Cyders are made: That it is not only common among the lower Class, and those who drink largely of the unfermented Juices, and the new Cyder; but that it is much more frequent among all Ranks, than in other Parts of *England*, nor intirely confined to Autumn.

Were the Apparatus for making Cyder the same in all the Cyder Counties, it would appear at first Sight very unaccountable, that the Inhabitants of one County in particular should experience such terrible Effects from the Liquor; whilst those of the others drink it with Impunity.

In many Parts of *Devonshire*, the circular Trough used in grinding Apples, is composed of several Pieces of Moor-Stone, cramped together with Iron, and fixed by melted Lead, poured into the Interstices, on the Inside of the Groove. Sometimes these Stones are irregular, and do not correspond with each other, and then the Chasms are filled up with Lead, and the Apples come into immediate Contact with this poisonous Metal.

It is likewise common, in several Parts of the County, either to line the Cyder Presses intirely with Lead, to keep them from leaking; or to make a Border quite round the Press, for receiving the Juice of the Apples, and conveying it into a Vessel of Wood or Stone. In many other Places it is common to nail Sheet Lead over any Cracks or Joints in the Presses; and likewise to convey the Juice from the Presses in Leaden Pipes.

The *Herefordshire* People are not subject to this Colic. There is no Lead used in any Part of the grinding or pressing Apparatus. Once, indeed, in a plentiful Year of Apples, a Farmer, who wanted casks, filled a large Leaden Cistern with new Cyder, and kept it there till he could procure Hogsheds, sufficient to contain the Liquor. The Consequence was, that all who drank of it were effected by it, as Lead-workers usually are.

There is at this Time, or at least there very lately was, on an Estate of his Grace the Duke of *Somerset*, in the Parish of *Bury Pomeroy*, a Leaden Cistern of very large Capacity. During many Years the Apple Juice, as soon as expressed, was conveyed into it, and there remained till fit to be casked. Those who drank the Cyder were most cruelly tormented with the *Devonshire* Colic, and many died. The Leaden Cistern was, therefore, no longer used; and, in consequence, the Disease became less frequent among the Inhabitants of *Bury Pomeroy*.

Of

Of the COLIC of POITOU, or the DRY BELLY-ACH.

THERE is a Kind of *Colic* which degenerates into a *Palsy*, scarce taken Notice of by the Ancients. It is attended with a most violent Pain, not unlike that of the *bilious Colic*, which will neither yield to Clysters nor Fomentations, nor the usual Remedies, but continues several Months, whence proceeds a Wasting of the Body. There is a straight Compression of the Belly, a Retraction of the Navel inwards, and extreme Costiveness, so as to transmit no Flatus, and hardly admit a Clyster. A Pain in the Loins, a violent Contraction of the *Peritonæum* and Muscles of the *Abdomen*. Add to these, Coldness of the Extremities, trembling, shivering, a hard contracted Pulse, extreme Anxiety, and a Disposition to Fainting. It is sometimes attended with a Kind of an intermitting Fever, and sometimes with a *continual slow Fever*, and at length, when the Pains remit, the *Palsy* succeeds, the morbid Matter sensibly insinuating itself, through the Membranes of the *Abdomen*, into the Spine of the Back. This *Palsy* chiefly affects the upper Parts of the Body, while the Legs and Thighs are generally full of Pain; in some few they become *paralytic*. Sometimes the Brain is affected, whence proceed *epileptic Fits*, which terminate in Death. RIVERIUS.

The *nervous* or *convulsive Colic*, or *Colic* of *Poitou*, is called in *Barbadoes* the *Dry Belly-Ach*; and may justly be reckoned an *Endemic Disease* in the *Leeward Islands*. The Belly is seized with an intolerable piercing Pain, sometimes in one Part only, sometimes in several Parts of the Intestines; which, in a short Time, extends itself to a greater Distance, whereby the Fibres of the Bowels seem contracted, and drawn together from the *Anus* and *Pylorus*, towards the Part primarily affected. This sometimes continues eight, ten, or fourteen Days, keeping the Patient continually upon the Rack, with scarce any Remission. The Pain afflicts with various Sensations by Turns; as *burning, rending, gnawing, piercing*, &c.

The Belly continues all this Time *obstinately costive*; the Urine is little, the Strength decays, the Body wastes, the extreme Parts are cold, and the Patient frequently falls into clammy Sweats and *Deliquia*. Add to these, that *Grief, Anger, Rage*, and *Despair*, eclipse the *Reason*, pervert the *vital, natural*, and *animal Functions*, and the Patient sinks under the Pressure of these accumulated Afflictions.

When the Extremity of the Pain begins to abate, there is a *tingling Uneasiness* through the *Spinal Marrow*, which from thence proceeds to the Nerves of the Arms and Legs, now very weak and

and debilitated; which Debility increases daily, till it ends in a *Palsy* of the Extremities. TOWNSE.

The *Cure* is to be attempted with *Clysters* often repeated, and the *Primæ Viæ* opened with a *Cathartic*; after which the Patient is to be put into a warm emollient Bath, three, four, or five Times in a Day, that the Acrimony of the Humours may be mitigated, and the Pores kept open. The next Day repeat the *Cathartic*, the following use the Bath. This is to be done alternately, if the Patient's Strength will bear it, till the Pain is allayed, and he out of Danger.

In the mean while the *Clysters* may be continued; those of Milk are best, to which may be added *Cassia*, and any emollient Oil; with the last of which the Belly may be frequently anointed. RIVERIUS.

Balsam of Peru, frequently given, in a large Dose, is a Cure for this Disease; that is, xx, xxx, or xl Drops, in a Spoonful of the finest Sugar, twice or thrice in a Day. SYD.

The best *Method of Cure* is, first to give the Patient viij or x Grains of *Matthew's Pill*, [xvi or xx Grains of the *saponaceous Pill* will answer the same Intention,] and about Half an Hour after, ℥ss. of *Manna*, ʒij. of *Cream Tart.* and ʒj. of *Syrup of Roses solutive* in warm Water Gruel; and this is to be repeated every three Hours, giving iv Grains of *Pill. Matth.* [viij Gr of *Pil. Sapon.*] in the Intervals.

But if the Patient, through a Propensity to vomit, cannot retain the *Laxative Draught*, give the following Mixture:

1. R. *Sal. Absinth.* ʒj. *Extract. Thebaic.* gr. j. vel jss. *Aq. Ment. vulg. Spir.* ʒi. *Syr. Limen.* ℥ss. M.

A *Clyster* is likewise to be injected every four Hours, till the Body begins to be soluble.

2. R. *Decoct. commun. pro Clyst.* ℥viij. *Bals. Capiwi in Vitello Ov. solut.* ʒij. *Sapon. Amygd. Ol. Anis. an.* ʒij. M. F. *Enema.*

In the mean Time, warm *Fomentations* are to be applied all over the *Abdomen*, with *Flannel*.

3. R. *Flor. Chamemæl.* ʒiij. *Bacc. Junip. Lauri, an.* ʒj. coq. in *Aq. Fontan.* lbv. ad lbij. sub *Finem* addendo *Sem. Carui, Rœnic. Anis. an.* ℥ss. *Colat. dissolv. Extract. Thebaic.* ʒj. *Spir. Sacchar.* lb.

A *Semiscupium*, or Bath, made with the Leaves of Wild Sage, Lavender, Rosemary, Chamomile, and other warm, nervous Plants, help to alleviate the Pain, and yield considerable Relief.

Carminative Sudorifics, and *Baths*, while the Patient continues costive, are hurtful; for by carrying the bilious and corrosive Matter into the Blood, and external Parts, they induce Contractions of the Limbs, Palsies, hectic Fevers, or epileptic Convulsions. If the Patient is old and weak, *Opiates* are to be avoided; for they will bring on a *Paresis*, or *Palsy*, or a Mortification of the internal Parts.

When the Pains are mitigated, and the Body somewhat open, then the following *mercurial Cathartic*:

4. R. Calomel. ℥j. Pil. ex. Colocynth. cum Al. ℥j. Bals. Capivi q. s. M. F. Pil. iv. mane sumend.

Those are to be repeated daily till the Pain remits, and the Body is open.

Opiates may be now laid aside, or their Quantity lessened; or, in their stead, the Patient may take two Scruples of *Balsam of Peru*, with Loaf Sugar, every six Hours. This is excellent in a proper Time of the Disease, and is a sufficient Dose.

Piselaum Indicum, otherwise called *Barbadoes Tar*, is still of much greater Efficacy, if the Stomach will admit of it. Two Drams must be given three Times a Day, till the Disease is vanquished.

When the *Tingling* begins to be felt along the *Spinal Marrow*, or the *Numbness* or *Inability of the Limbs*, the whole Length of the *Vertebrae*, as well as the Limbs, ought to be chafed with a Mixture of this *Tar* in double distilled Rum, which will, if any Thing in Nature can, avert the *impending Palsy*.

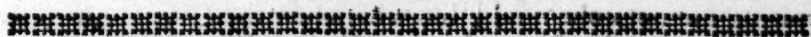
When the *Palsy* is actually formed, it will then be best for the Patient to repair to *Bath*.

The modern *French Physicians* will not allow that the *Colic of Poitou* is endemial to that Place; nay, *Fernelius*, who published his *Universa Medicina* as long ago as the Year 1592, when he describes the *Colic of Poitou*, in the Case of a Painter of *Anjou*, in the Year 1577, plainly shews, that neither he, nor any of the other Physicians concerned, understood the true Cause of the Disease. *Ramazzini*, who inquired accurately into the Causes of those Diseases to which various Artificers are subject, much wonders how it should happen, that, since Lead furnishes excellent Remedies for internal as well as external Purposes, the Potters should suffer so cruelly from the Exhalation of this Metal, in doing their Work.

We find that in the Year 1487, there was a *Recessus Imperii* promulged at *Rotenberg* in *Germany*; and in 1478, at *Friberg*; which was enacted in 1500 at *Tubingen*; and in 1577 in the same Place; by which Decrees it was made capital to adulterate

Wines

Wines with Litharge, or to use Bismuth in the Fumigation of them, as they had been the Cause of insuperable and mortal Diseases. Yet, in the latter End of the last Century, the Vintners, in order to correct their sour, austere Wines, and make them palatable, dared again to mix Litharge with them. Some threw it into their Casks in Substance; others impregnated Vinegar with it, which they mixed with their Wine in certain Proportions. *Cockelius*, in the *Ephemerides Germanicae*, describes the Method and Proportion. *Brunerus* and *Vicarius* have given several curious Particulars concerning the discovered Adulteration, and its Effects on the human Body; and *Reisellius* has more on the same Subject. The Duke of *Wirtemberg*, in 1696, again decreed it capital to mix Litharge in Wine, or even sell it in the Shops. Yet we are informed, that in 1705, the same Adulteration was repeated in the Circle of *Swabia*. And it is certain, the same is practised even at this Day, both in *Germany* and *France*, in Defiance of Laws, and the Dictates of Humanity. Now, from a very remarkable Similarity of Circumstances and Effects, may we not reasonably suspect, that the Colic of *Poitou*, and that of the Duchy of *Wirtemberg*, were produced by one and the same Cause? BAKER.



Of the ILIAC PASSION.

THE Iliac Passion is a Pain in the small Intestines; apt to turn to an Inflammation, in which their peristaltic Motion is inverted, and their Contents, and even the Excrements themselves, are voided by the Mouth in Vomiting. Nothing will pass downward, not so much as a Flatus. It is often attended with fatal Symptoms.

It is preceded with Costiveness, which is soon followed with most sharp and violent Pains, with an Inflammation; Distention, and a Tumour of the umbilical Region, which feels hard to the Touch; the Body is so bound, that neither Wind nor Excrements can pass downward: Soon after, the Wind first makes its Way upward, then comes on a Nausea and a frequent Vomiting of a bilious and pituitous Matter: The Breathing grows difficult, and whatever is eat or drank is soon thrown up again; reddish Faeces, with a stinking Smell, are afterwards forced up by Vomiting; this is succeeded by Loss of Strength, a preternatural Heat, a hard and contracted Pulse, with great Thirst; the Urine is red, and voided with Difficulty. When the Case becomes desperate, a Hiccup and Delirium

rium appear, the *Nerves* are distended, the Body is all in a cold Sweat, and violent Convulsions; and Fainting Fits put an End to the Tragedy.

In some who have been dissected, the Gut seemed to be twisted; but most commonly one Part of the Gut enters into the other. This Disease may also proceed from a Rupture either of the *Scrotum* or the *Groin*; from Poisons; from any Thing that stops up the Passage through the small Guts, such as hard, dry Food, [Walnuts*,] Chesnuts, Sea-Biscuits, Quinces, Pears, unripe, acerb Fruit, when eaten in large Quantities: To which drinking little, a sedentary Life, and a melancholy Disposition of Mind will greatly contribute. These all tend to harden the *Fæces*. The gross Intestines may also be plugged up with *Scybals*, especially if a Person either thro' Shame, or for want of Conveniency, does not listen to the Calls of Nature. I knew an Instance of a certain Prince who died of this Disease, whose *Colon* was stuffed with *Scybals*, amounting to twenty Pounds.

As to the *Prognostics*, there is Hope of Recovery, while there is no *Inflammation*, and while Clysters are admitted into the Body, and rendered back the same Way; as also while the Pain shifts from one Place to another, and the Pain and Vomiting are not continual; likewise when the Disease proceeds from *Fæces* obstructing the Intestines. The Hope is still greater, if laxative Medicines begin to make their Way downward. But if there is an *Inflammation*, which is known from a Fever, the Vehemence of the Pain, a Suppression of Urine, a hard and quick Pulse, an unquenchable Thirst, a Tossing of the Body, and extreme Debility, with Coldness of the extreme Parts, the Case is desperate. A sudden Cessation of Pain, an absolute Want of Strength, with a weak Pulse, fainting Fits, and a stinking Breath, shew the Intestines are mortified. HOFF.

As to the Cure; first of all it is necessary to bleed in the Arm, and afterwards, in an Hour or two, exhibit a powerful Clyster; the Smoke of Tobacco blown into the Bowels, through an inverted Pipe, I recommend as the most efficacious: This may be repeated after some Time, unless the Effect of the first renders it unnecessary. If the Disease will not yield to this, a pretty strong Cathartic is adviseable; thus,

I. R. Pil. ex Colocynth. simp. ʒss. Calomel. ʒj. cum q. s. Bals. Peruv. F. Pil. No. iv. Cap. è Coch. uno Syr. Violar. nullum insuper Liquorem sumendo, ne minus retineantur. Or,

* I knew a Gentleman in Surry, who fell into this Disease through excessive eating of Walnuts, of which he died; for nothing would pass through him.

a. R.

2. R. Resin. Scam. vel, defectu ejus, Resin. Jalap. gr. xij. Galomel. ℥j. M. F. Pulvis. Cap. e. Coch. j. Lact. Vaccin. suā perbibendo ejusdem Lactis Cochli. unum vel alterum.

[The following saline Cathartic is much better, and more safe.

3. R. Tartar. Vitriolat. ℥ij. vel 3ss. Salis Tart. gr. viij. vel 9ss. Ol. Moschat. Chem. gut. j. Elect. Len. q. s. F. Bolus quarta quaque hora sumendus, donec alvus liberè dejecerit.]

If the Patient cannot retain this, let him take xxv Drops of the Thebaic Tincture in 3ss. of Spirituous Cinnamon Water; and when the Vomiting and Pain remit, let the Cathartic be repeated; and if the Pain returns, give the Anodyne again, and repeat it every fourth or sixth Hour till the Intestines are easy, and the Cathartic begins to pass downwards. When it has done working, give the following Haustus:

4. R. Aq. Cinnam. Spir. 3ij. Tinctur. Thebaic. gutt. xxv. M. F. Haustus.

This is to be repeated twice or thrice a Day, till the Vomiting and Pains quite cease. Afterwards it will be adviseable to give a Paregoric at Bed-time, for several Nights. SYDENHAM.

After the Pain has been mitigated with Anodynes, a Cataplasm should be applied to the Hypogastric Region to stop the Vomiting and Hiccup; which may be composed of equal Parts of old Venice Treacle and expressed Oil of Nutmegs, with the Addition of Oil of Mint and Camphire. This done, a gentle Laxative of Manna, Cream of Tartar, and Oil of Sweet Almonds, may be given with a more happy Success, if the Excrements had been long retained.

When there is an Inflammation, nothing is better than six or eight Grains of purified Nitre, and half a Grain of Camphire mixed with some antispasmodic Powder*, and taken in a convenient Vehicle. Outwardly apply a Liniment of an Ounce

* Hoffman particularly mentions the Pulv. epilept. Marchionis, which he never fails to prescribe in spasmodic Cases; for which Reason it may not be improper to shew how it is made.

R. Rad. Paon. mar. decrescente Luna effossarum 3ss. Visc. Quercin. Rasur. Ebor. Ung. Alc. Cornu Cerv. ex apicibus dejumpt. Spodii, Margarit. ppt. an 3j. Coral. rub. ppt. 3lj. Folla Aur. pur. No. xx. M. F. Pulvis. The Gold is only for Ornament.

The Dose is from half a Scruple to half a Dram. He frequently gives it as follows, especially in Hysterical Cases:

R. Pulv. Marchion. 3ij. Calc. Antimon. ℥ij. Cinnab. ppt. Nitr. pur. an 9ss. Pulv. Castor. gr. vi. In spasmodic Cases, thus,
R. Pulv. March. Calc. Antimon. Pulv. e Chel. Canc. comp. an. 3j. Cinnab. nativ. ppt. Nitr. pur. an. 3ss. Extract. Castor. Liquid. gut. vii. M. Dosis 3j. vel 3ss.

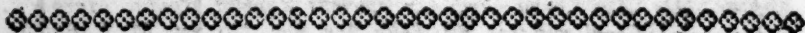
of *Axungia humana*, [any other penetrating Fat will do as well,] and a Dram of *Camphire*.

But when other Things fail in the Cure of the *Iliac Passion*, Recourse must be had to *Quicksilver*, from whence I have seen *surprizing Effects*; half a Pound, or a Pound at most, is sufficient, with fat Broth, [or Oil,] and the Patient should lie on his right Side, [or walk gently about the Room,] that its Descent may be easier. I have known the Vomiting cease immediately after taking it. But if there is an actual Inflammation, the Use of *Quicksilver* should be forborne; for if the Patient dies, from what Cause soever, the By-standers will probably affirm the *Quicksilver* killed him.

There is no manner of Danger in the Use of *Opiates*, to mitigate the Pain, provided they are exhibited in the beginning, after *Bleeding*, or before there are any Signs of a Mortification.

Clysters are generally very advantageous, for they relax the *Spasms* of the *gross Intestines*; and for this Purpose *warm Water* with *Syrup of Marshmallows* will be sufficient; and if the Strength will permit, they should be injected every two Hours, from the first Day of the Attack. They likewise restrain the Inversion of the peristaltic Motion, and soften the *Fæces*. HOR.

When the *Iliac Passion* proceeds from an *incarcerated Hernia*, then *Bleeding* is of the greatest Advantage. HEIST. Then the *Rupture*, and the Part through which it proceeds, are to be fomented with *emollient Decoctions*, *relaxing Oils*, *Ointments*, and *Pultices*; [or with a Bladder filled with Milk or hot Water; and with *Clysters* of the same Quality.] After which the Intestines are to be put back with a gentle Hand, and the Patient is to be placed with his Head downwards, and his Legs and Thighs lifted up. Some who have been held up by the Feet have met with immediate Relief. SYD. If these Methods fail, a *Clyster* of the Smoke of strong Tobacco, in a large Quantity, may so stimulate the Intestines as to cause them to contract and retreat into the Belly. If this will not do, Recourse must be had to a skilful Surgeon, who by *manual Operation* may give the Patient Relief. HEISTER.



Of V O M I T I N G.

VOMITING is a spasmodic, retrograde Motion of the muscular Fibres of the *Oesophagus*, Stomach and Intestines, together with strong Convulsions of the abdominal Muscles and

and Diaphragm. Those that are *flight*, create *Nausea*; those that are *strong*, Vomiting. BOER.

Vomiting is generally preceded with a *Nausea*, a Tension and Weight in the Epigastric Region, a Bitterness in the Mouth, Anxieties of the *Præcordia*, [Sickness at the Stomach,] Plenty of thin *Saliva* in the Mouth, a Trembling of the nether Lip; to these may be added, a Dizziness of the Head, a sudden Dimness of Sight, Redness of the Face, a fruitless Eructation; and then the Contents of the Stomach are discharged upwards.

Vomiting is caused by Excesses in Eating and Drinking; by the Acrimony of the Aliments; by the Translation of the morbid Matter of Ulcers, the Gout, Erysipelas, and other Diseases to the Stomach; from a Looseness or Bloody-Flux too suddenly stopped; from a Congestion of Blood in the Stomach, which happens to Women in the first Months of Pregnancy, or when there is a Suppression of the Menses, or Bleeding Piles; from Sympathy, by tickling or irritating the Throat or *Oesophagus* with the Finger or a Feather; from the Colic, Iliac Passion, a Rupture, Fit of the Gravel, Worms; from Poisons; from Hurts of the Brain, such as Contusions, Compressions, Wounds or Inflammations of the Diaphragm, Stomach, Intestines, Spleen, Liver, Kidneys, Pancreas or Mesentery; from an unusual Motion of the Spirits in a Cart, Coach, or Ship; from the Idea of some nauseous thing, or which has formerly occasioned Sickness or Vomiting; from a Regurgitation of Bile into the Stomach. BOERH. HOFF.

As to the *Prognostics*; a *critical Vomiting* is salutary; a *Symptomatic* bad; and that which proceeds from a subtle caustic Acrimony, which vellicates the Nerves, worst of all. All violent excessive Vomiting is bad, as it may occasion Abortions, Ruptures, &c. *Bilious Vomiting*, especially the green, porraceous, and æruginous, consisting of a *corroding Acid*, portend Danger of an Inflammation; *Vomiting from Worms* which gnaw the Stomach, is generally pernicious; *Vomiting of dead Worms*, if at the same time the Convulsions of the Limbs, and other grievous Symptoms suddenly cease, shews a Mortification. All *fætid Vomiting* is a sign of internal Corruption, and therefore bad. A *Sebaceous* or *Suety Vomiting*, being a Sign of an abounding coagulating Acid, denotes an intolerable *Heart-burn*. HOFF.

When *Vomiting* proceeds from a *Crapula*, late Suppers, disturbed Digestion by Riding, and the like, it may be prevented by deep Inspirations often repeated, by which the Diaphragm is made to press on the Stomach, and accelerate the Discharge of its Contents; but if an Inclination to vomit,

from the same Causes, comes on unawares, a pretty strong and often repeated Friction of the Hypogastric Region with the Hand, will prevent it, as I have found by various Trials.

Pituitous Vomiting, from Crudities of the *Prima Viæ*, is best cured by a Vomit, and especially if there is a troublesome Reaching to vomit, attended with a *Nausea* and a *Cardialgia*; then having first prescribed neutral Salts, or Squills, to incide the Phlegm, give warm Water mixed with unsalted Butter, very plentifully, or Powder of *Ipecacuanha*.

Bilious Vomiting, which proceeds from a depraved Digestion, and has its Seat in the *Duodenum*, is cured by Absorbents and gentle Laxatives of *Manna* and *Rhubarb*. When it proceeds from too great a Laxity of the Biliary Ducts, then *Cortex Peruvianus*, *Cortex Eleutheria*, and bitter Tinctures and Chalybeates, will be most efficacious. If from a *Coagulum* or *Stone* in the Gall-Bladder, Mineral Waters are more likely to succeed.

When *Vomiting* is caused by a sharp Matter vellicating the Nerves of the Stomach, proceeding from the *Gout*, or an *Erysipelas*, besides giving quieting Medicines, it ought to be drove back by *Diaphoretic Powders*, with a small Addition of *Camphire*. Also externally, *Frictions*, *Pediluvia*, and *Clysters*, are useful.

When it proceeds from *Poisons*, nothing is better at the Beginning than drinking large Quantities of Milk, and fat oily Things, to sheath their Acrimony, and bring them up by Vomiting.

Vomiting from a Suppression of the *Menses*, or from the Stoppage of the *Bleeding Piles*, is cured by Absorbents, by gentle Laxatives, by Clysters and Strengtheners; and more especially by Bleeding, or causing the Flux to return. Emetics, in this Case, are as bad as Poison, and either cause a Vomiting of Blood, or a fatal Inflammation of the Stomach.

Morning Reachings, caused by hard Drinking, are cured by Absorbents and Antiacids, and by strengthening the digestive Faculty, by Bitters, candied Orange Peel, &c. [Or,

I. R. Cort. Aurant. sicc. ʒj. Rad. Gentian. ʒij. Sem. Cardamom. minor. Zedoar. an. ʒi. Caryoph. Croc. an. ʒi. Cocci-
nel. gr. x. Spir. Vin. Gal. ʒij. F. Tinctura, Cap. gut. lxxx,
c, vel cxx, e quovis Vehiculo.]

The immoderate and frequent Vomiting of pregnant Women requires repeated Bleeding in the Foot, and Rest both of Mind and Body. I have done more good in this Case with cold, pure Spring-Water, where there was Danger of Abortion, than
by

by any other Method. When there is need of an *Analeptic*, a Spoonful of Cinnamon Water with a little Marmalade of Quinces is sufficient. Hoff.



Of a dangerous AffECTION of the OESOPHAGUS.

THIS Case (says Dr. *Munckley*) is one of the most deplorable Diseases to which the human Body is subject. Its Beginning is in general so slight, as to be scarce worth Notice; the Patients perceiving only a small Impediment to the Swallowing of solid Food: They usually continue in this State for many Months, during which all liquid Foods, and even Solids themselves, when cut small and swallowed leisurely, are got down without much Difficulty: By Degrees the Evil increases, and the Passage through the *Oesophagus* becomes so narrow, that not the smallest Solid whatever can pass through it; but, after having been detained for some time at the Part where the Obstacle is formed, is returned again with a hollow Noise of a very peculiar Kind, and with the Appearance of Convulsion.

The Seat of this Malady is sometimes near the Top of the *Oesophagus*, and at other Times farther down, nearer the superior Orifice of the Stomach. In this last Case, the Part of the alimentary Tube which is above the Obstruction, is frequently so dilated by the Food, which is detained in it, as to be capable of containing a large Quantity; and the kind of Vomiting, by which it is again returned through the Mouth, comes on sooner or later after the Attempt to swallow, in Proportion to the Nearness or Remoteness of the Part affected. In the last Stage of this Disease, not even Liquids themselves can be swallowed, so as to pass into the Stomach, and the Patient dies literally starved to Death.

On the Dissection of such as have died in this Manner, the *Oesophagus* is found to be considerably thickened; and, in some, so contracted within at the diseased Part, as scarcely to admit the passing of a common Probe; in others, to adhere together, in such a Manner, as intirely to close up the Passage, and not to be separated without great Difficulty.

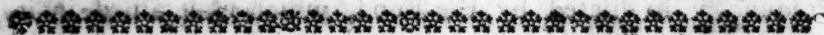
He comes next to shew what he has found to be the most efficacious Method of treating this Disease, which, though not uncommon, yet in general has been considered as incurable,

He claims not the Merit of having discovered the Method of Cure, but hopes that some Service may arise from publishing what his Experience has confirmed to him; having first received the Hint from another eminent Physician.

The only Medicine, then, from the Use of which he has ever found any Service, is *Mercury*; and in Cases which are recent, and where the Symptoms have not risen to any great Height, small Doses of *Mercury*, given every Night, and prevented, by purgative Medicines, from affecting the Mouth, have accomplished the Cure.

But where the Complaint has been of long standing, and the Symptom has come on, of the Food's being returned through the Mouth, a more powerful Method of Treatment becomes necessary. In this Case he has never found any thing of the least Avail in removing any of the Symptoms, but *Mercury*, used in such a Manner as to raise a gentle, but constant Spitting; and this Method he has pursued with the happiest Success. If this Method be commenced before the Complaint has gained too much ground upon the Constitution, the Case is not to be despaired of; and of those who have come under his Care, in this State, by much the greater Part have received considerable Benefit from it, and many entirely cured.

The Complaint itself, he observes; is not very uncommon; but there is no Instance, to his Knowledge, recorded, of Success from any other Manner of treating it, than that he has recommended.



Of VOMITING BLOOD.

Vomiting of Blood is generally preceded with a tense, pricking Pain in the left *Hypochondrium*; and the Eruption itself is almost always attended with Anxiety of the *Praecordia*, and a compressing Pain, as also a Kind of a Girding on the same Side. It is frequently attended with fainting Fits, especially if the Blood has an ill Smell, or is corrupted.

The Seat of this Disease is in the *Stomach*, though the *Spleen* sometimes has a Share in its Production.

Persons more subject to it are the lean and slender; Women irregular in their *Menses*, and who have been hastily cured of intermitting Fevers, which has brought on a Suppression of the *Menses*, and then have taken hot, forcing Emmenagogues; as also Women about the Time that their *Menses* leave them; likewise plethoric Women in the Time of Pregnancy,
and

and hard Labour. Men of a weak Constitution are subject to the Bleeding Piles, which either cease to flow, or flow in too small a Quantity.

The *Danger* which attends this Disease, is not the same in all, though no Hæmorrhage is more dangerous than this. If there is no Fever, and if it proceeds from suppressed Evacuations, caused by a *Plethora*, the Case is not so desperate. On the contrary, if there is a Fever; if the Blood is corrupted, stinking, and black; if it proceeds from a large, diseased Spleen, or an indurated Liver, attended with Swooning, there is no Hope of Recovery left, for Death is at hand. It is still worse, if worse can be, when the Stools are black; then the Seat of the Disease is in the *Ilium*, from a Rupture of the *Mesaraic Vessels*.

In the *Paroxysm*, if the Patient is plethoric, bleed according to his Age and Strength.

When there is an Orgasm in the Blood, and the Pulse is impetuous and strong,

I. R. *Aq. Fontan.* ℞j. *Nitr. pur.* ʒj. *Syr. Papav. errat.* ʒss. *M.*

This, taken successively and temperately, will be very efficacious in perfecting a Cure.

When the *Region* of the *Præcordia*, especially on the left Side, is afflicted with pricking and vellicating Pains, and spasmodic Strictures, together with Heat and Thirst, Emulsions will be proper. These must be made with the four cold Seeds, and white Poppy-Seed, to which must be added, a little *Nitre*, and a proper Quantity of *Diacodium*.

Likewise, in order to relax the *spasmodic Strictures of the Intestines*, and to divert the Flux of the Humours from the Part affected, *emollient Clysters*, frequently injected, will be proper, with a gentle *Stimulus*, and the Addition of *Nitre*.

Outwardly to relax the Spasms and strengthen the Stomach, I have found nothing better than what I call the *Oil of Camphire*, which is made by dissolving a Dram of *Camphire* in an Ounce of *Oil of Sweet Almonds*, and then by adding twenty Drops of *Oil of Rhodium*. Let the *Region* of the *Præcordia* and the *left Hypochondrium* be anointed with this Oil; and afterwards lay a Bag on the Part affected, filled with Camomile and Elder Flowers, with Mint and Wormwood, boiled in Vinegar of Roses or red Wine, pretty hot.

If Blood is thrown up in great Quantity, with Loss of Strength, Ligatures made upon the Joints may be serviceable, as also putting the Legs and Arms in cold Water.

When

When the Paroxysm is off, half a Dram of *choice Rhubarb* will be highly beneficial, either with or without testaceous Powders; or twelve Grains of *compound Powder of Amber*, with half a Grain of Camphire taken twice a Week, at Night going to Bed, in a Draught of Spring Water. *Rhubarb* is a kind of a Specific in opening Obstructions. The Patient, instead of Tea, may drink a Decoction of Yarrow, Liquorice, and Fennel-Seeds. The common Drink may be Spring Water, in which Iron has been quenched, or acidulated Whey. [I have known *Buttermilk* do Wonders in this Case.]

If this Disease proceeds from a Suppression of the Menfes; bleed in the Foot, and give Clysters prepared of Mugwort, Pennyroyal, Wall-Flowers, Bay and Juniper Berries, pretty frequently. Or the Patient may take Infusions or Decoctions of *temperate Emmenagogues*.

If it is caused by *sharp, acid Liquors*, corroding the Vessels of the Stomach, then testaceous, alkaline Powders are proper; and Starch boiled in Milk will heal the Vessels.

Opiates must be shunned in these Cases, because they bring on great Weakness and Loss of Strength, to the great Detriment of the Patient. Likewise all *Styptics*, *Astringents*, and *vitriolic Medicines* must be studiously avoided; these, indeed, will stop the Eruption of Blood, but then it will stagnate and putrify in the Vessels, with Danger of an Inflammation and Mortification, or at least, if the Patient is cachectic, it will hasten a Dropsy.

[Most Authors recommend *styptic Medicines*, which however ought never to be made use of, but when nothing else will do, *Mead's Styptic* may be given as safely as any; melt three Drams of *Alum* over the Fire, with one Dram of *Dragons Blood*, and give a Scruple of it in Powder mixed with Conserve of Roses; drinking four or five Spoonfuls of the Tincture of Roses after it, which may be repeated every three Hours, if Necessity requires. *Shaw*, in desperate Cases, ventures to prescribe *Saccharum Saturni* with other Astringents; thus,

2. R. *Mastich. Resin. flav. Alum. crud. Terr. Japon. Sal. Prunel. an. ʒiiss. Sacchar. Saturn. ʒij. Electar. è Scord. ʒj. Diacod. q. s. F. Electarium de quo cap. quant. N. Moschat. tertiâ vel quartâ quâque horâ, superbibendo Julap. sequent. Cochlear. iv.*

3. R. *Gum. Arab. ʒj. solve in Aq. Fontan. ʒviiij. & adde Coral. rub. ppt. ʒiiij. Syr. è Papav. errat. ʒiiss. M. F. Julap. & hujus Cochlearibus aliquot sumat pro re nata, Tinctur. Thebaic. gut. x vel xv.*

Pitcairn

Pitcairn lays great Stress upon the following :

4. R. Succ. Millefol. depurat. ℥iv. Aq. Cinnamon. simp. ℥ij. Extract. Thebaic. gr. iij. Lap. Hæmitat. gr. xxv. Coral. rub. ppt. ʒj. Syr. Papav. errat. ℥j. M. Capiat. cochleatim.]

When the Vomiting of Blood ceases, the Patient must abstain from Emetics, Aloetics, oily, fat, and sweet Substances, for these last relax the lacerated Vessels too much. Hoff.



Of a DIARRHOEA, or LOOSENESS.

A Diarrhoea is a frequent and copious Evacuation of liquid Excrements by Stool; and may proceed from Aliments, or Humours of various Kinds, derived from different Parts into the Intestines.

The Cause is a Stimulus which irritates the Viscera, occasioning the Expulsion of their Fluids, and may therefore proceed from the Vessels of the Liver, Pancreas, Mesentery, and Intestines; when at the same Time the Mouths of the Mesenteric Veins and the Lacteals are obstructed. Or there may be an extraordinary Laxity of the Intestinal Fibres; or, lastly, it may arise from a Stoppage of other Excretions. BOER. It is frequently attended with Gripings. The Patient is weak, makes but little Urine, has a depressed Pulse, a depraved Appetite, and is sometimes feverish.

In a Diarrhoea arising from sharp, fermenting Juices in the Primæ Viæ, which accelerate the peristaltic Motion of the Intestines, the first Indication is to discharge the stimulating Matter, which may be effected by a Dose or two of Rhubarb, in the following Manner:

1. R. Rhei elect. ʒss. Cinnam. pulv. gr. xii. M. cap. Mane cum Regimine in aliquo Vehiculo convenienti. Or,
2. R. Tinct. Rhubarb. Vinof. Coch. iv. Syr. Rosar. Solut. ℥j. M. F. Haustus.

At Night the Patient may take fifteen Drops of the Thebaic Tincture, in two or three Spoonfuls of Aq. Cinnamon. simp. The Rhubarb is to be repeated till the Looseness abates, which is generally after the second Dose.

If there is a Saburra of ill-concocted Matter in the Stomach, a Vomit will be necessary of Ipecacuanha, [or an Ounce of its Wine,] and then to strengthen its Tone, order as follows;

3. R. Rad. Serpent. Virgin. ʒij. Gentian. ʒss. Cort. Aurant. ʒj.

℥j. Cort. Winteran. Galang. an. ʒi. Coque in Vin. Made-
renf. ℥iij. Cap. Coch. v. vel vj. bis aut ter in die.

If the *Diarrhoea* continues to be violent, it will be proper to mix Astringents with the *Rhubarb*.

4. R. Rhei pulv. ʒls. cum. q. s. Electar. e Scordio. M. F. Bo-
lus, addendo Ol. Cinnam. gut. ij. [Sydenham prescribes this
at the Beginning of this Disease.]

If the *Diarrhoea* proceeds from suppressed Perspiration, and if the Stools are thin, and the Patient feverish, first bleed, then give an Emetic, afterwards a Purge of *Rhubarb*, and last of all Astringents. TOWNE. [Thus,

5. R. Electar. e Scord. ʒls. Bol. Armen. Terr. Japon. Sang.
Dracon. an. ʒls. Ol. Cinnam. gut. j. Syr. Cydon. q. s. M.
F. Bolus, quartâ vel sextâ quâque horâ sumendus, superbi-
bendo Julap. sequent. coch. iv.

6. R. Aq. Menth. vulg. simp. Cinnam. simp. an. ʒiv. Aq. Nuc.
Moschat. Sem. Cardamom. an. ʒifs. Syr. e Cortic. Aur. ʒj.
Spir. Lavendul. comp. ʒiij. M. F. Julapium. Also,

7. R. Tinctur. Japon. ʒij. Spir. Lavend. comp. ʒj. Cap. gut.
xxx ad libitum e quovis Liquore idoneo.

But the best and safest Astringent of all is Logwood, given in Decoction thus :

8. R. Rasur. Lign. Campechens. ʒiij. Aq. Fontan. ℥iv. Coque
ad ℥ij. et sub Finem add. Cinnamon. ʒij. Cola. Capiat cy-
atham omni biborio vel ʒiv. quater in die.

A bilious *Diarrhoea* ought not to be too suddenly stopped, but the Humours are to be corrected gradually; for which Purpose, a Scruple of *Rhubarb*, slightly toasted, with a few Grains of Nitre, is very useful. Likewise half a Dram of the expressed Oil of Nutmegs, either alone, or mixed with a Grain of Opium, and given in Broth, is very efficacious. The Humours are like-
wise corrected with thin Emulsions of Almonds, and white Poppy Seeds, with the Addition of *Diacodium*.

When a *Diarrhoea* is very obstinate, after toasted *Rhubarb* has been given for some Days, prescribe a Sweat with a Dram of new Venice Treacle, and twelve Grains of burnt Hartshorn, Calc Antimon. and purified Nitre. HOFF. Or,

9. R. Theriac. Androm. ʒls. Catechu ʒj. Extract. Thebaic.
gr. j. Diacod. q. s. M. F. Bolus. Or,

10. R. Electar. e Scord. ʒj. Rad. Serpent. Virg. Croci. an. gr.
vi. Extract. Thebaic. gr. i. Diacod. q. s. M. F. Bolus.

External

Of the Cholera Morbus, or Vomiting and Looseness. 397

External Applications applied to the Belly are also beneficial, as I have found by Experience.

11. R. *Spir. Vin. camphorat.* ℥iv. *Ther. Androm.* ℥ij. *Ol. Caryoph. gut.* xx. *Ol. Anis. Menth. an. gutt.* vi. *M. F. Epithema.*

The Patient's common Drink may be *Decoct. alb.* with Solution of *Gum Arabic*; Rice boiled in Water, with a little Cinnamon; or a Decoction of the *Cort. Granat.* These may be made palatable with Syrup of Orange-peel.

Clysters are likewise often serviceable.

12. R. *Elect. à Scord.* ℥ss. *Theriac. Androm.* ℥ij. *Coq. in Laët. Vaccin q. s. Colatur.* ℥vij. *injiciantur, repet. pro re nata.* TOWNE.

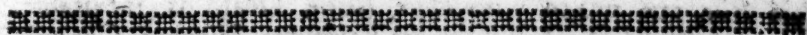
An obstinate *Diarrhœa* is to be cured by a Course of Vomits of *Ipecacuanha*. ETMULL. An habitual *Diarrhœa* is greatly relieved by wearing a Flannel Shirt, and keeping the Body warm. WAINWRIGHT.

In Vol. I. of the *London Medical Observations and Inquiries*, Dr. Pye proves, by a long Enumeration of Instances, that in all Loosenesses where Emetics are advisable, in every Age and Sex, though the Patient be in the weakest Circumstances, *Ipecacuanha*, from half a Grain, to four or six Grains, may be given with the utmost Safety, and will seldom fail of answering the Intention of the Prescriber; and adds, that for many Years he had experienced the great Efficacy of it, in curing, or assisting in the Cure of *Diarrhœas* in Children, when administered in Clysters; thus for watery Stools in a Child of six Weeks old,

13. R. *Decoct. alb.* ℥ij. *Rad. Ipecacuanh. pulv. gr.* viii. *Confect. Democrat.* ℥ss. *f. Enem. ter in die injiciend.*

For a Child of four or five Years old:

14. R. *Amyli* ʒj. *in Aq. Cinnam. simp.* ℥iv. *cui adde Conf. Democrat.* ℥ss. *Rad. Ipecacuanh. pulv. gr.* viii. *f. Enem.*



Of the CHOLERA MORBUS, or Vomiting and Looseness.

A Cholera, or Vomiting and Looseness, is a sudden, violent Purging upwards and downwards, proceeding from a convulsive Contraction of the Stomach and Intestines, caused by sharp, caustic Matter, of various Kinds. HOFF.

It

398 *Of the Cholera Morbus, or Vomiting and Looseness.*

It generally begins in *August*, and seldom reaches the first Week of *September*, unless it be a spurious Kind, which arises from Excess; for though this is cured in the same Manner, yet it is a Disease of another Class.

It discovers itself by *enormous Vomiting*, and a voiding of vitiated Humours by Stool, with great Trouble and Difficulty. There is a violent Pain, Inflation, and Distention of the Belly and Intestines, as also a *Cardialgia* and Thirst; the Pulse is quick and frequent, small and unequal; there are Heat and Anxiety; a most troublesome *Nausea*; Sweating; a Contraction of the Legs and Arms; Fainting; Coldness of the extreme Parts, and the like; which kill the Patient in twenty-four Hours. *SYD.*

Though this Disease is generally preceded with acid, nidorous Belchings, pungent and cardialgic Pains in the Stomach and Intestines; yet soon after, all of a sudden, and at the same Instant, the Vomiting and Looseness make their Attack. The Remains of the last Meal are voided first; afterwards *bilious Humours*; mixed more or less with *Mucus*; then those that are *yellow*, then *seruginous*, then *black*; often exceeding *acid*, and almost *corrosive*, together with frequent Eructations and Wind, and sometimes Blood itself. The Returns of the Evacuations are very frequent. Besides, there are most acute, wringing, griping, gnawing, biting Pains, with Inflation and Rumbling of the Intestines, chiefly above the Navel, and most racking Cardialgias. As the Disease increases, the Thirst becomes great; the extreme Parts grow cold; there is a Palpitation of the Heart, and then Hiccups; the Urine stops, and the Body is covered with a cold Sweat. It is common for the Patient to swoon away, and to fall into terrible Convulsions.

There is no Disease, except the *Plague* and *pestilential Fevers*, that kills sooner than this, especially if it attacks old Persons, or Children, or such as are weakened with Diseases. The more caustic the Matter is which is voided, the more intense are the Thirst and Heat, and the more certain the Danger. If it be *black Bile*, and mixed with *black Blood*, Death is inevitable. The Case is as bad when there are Faintings, Hiccups, Convulsions, Coldness of the extreme Parts, and cold Sweats. Nor is any Thing better to be expected from a Stoppage of the Evacuations, while the rest of the Symptoms continue. But if the Vomiting ceases, and the Patient sleeps soon after, or the Disease is protracted beyond the seventh Day, the Patient may recover. If he begins to break Wind downwards, it is a good Sign.

This

Of the Cholera Morbus, or Vomiting and Looseness. 399

This Disease requires the most *speedy Assistance*, and therefore the Physician cannot be called too soon. The Indications of Cure, are, 1. To correct and sheath the morbid Matter, and to fit it for Evacuation. 2. To appease the irregular spasmodic Motions. 3. To strengthen the nervous Parts which the Disease has weakened. HOFF.

Boil a large Chicken in three Gallons of Water, that so there may be scarce any Taste of the Flesh, and give the Patient a large Quantity of it to drink; or, for want of it, warm Posset Drink; and also repeated Clysters of the same Liquor; now and then an Ounce of Syrup of Violets may be added to the Draught or Clyster. These Operations may be compleated in three or four Hours, and then a Purgative will crown the whole.

But if the Physician is not called in Time, and the Patient has been exhausted with Vomiting and Purging for many Hours, and the extreme Parts begin to grow cold, then immediate Recourse must be had to *liquid Laudanum* in a larger Dose; thus:

1. R. *Tinctur. Thebaic. gut xxv. Aq. Cinnamom. Spir. 3j. M.*

And when the Symptoms cease, it is to be repeated Morning and Evening, till the Patient's Strength returns. SYD.

Neither *Cathartics* nor *Emetics*, properly speaking, are of Use in this Disease, but the Vomiting may be promoted by drinking a large Quantity of warm Water, mixed with fresh Butter or Oil, and the Purging by oily and emollient Clysters. Or the Patient may drink small Chicken Broth. Whey is of great Use to quench the Thirst; to which may be added, the absorbent and testaceous Powders. HOFF.

If the Patient is not too much exhausted, I make him drink plentifully of warm Water three or four Times, to dilute and blunt the Acrimony of the Humours, and to bring them up by Vomit: Then he must take as freely of a *Decoction of Oat Bread*, baked without Leaven or Yeast, carefully toasted, without burning, as *brown as Coffee*; which Decoction ought to be of the Colour of weak Coffee. This is grateful to the Stomach, and I do not remember that any ever brought it up again. I always have used *Oat Bread*, but Wheat Bread or Oatmeal well toasted may do.

When the Patient is much exhausted with Evacuations upwards and downwards, I give him a large Draught of the Decoction; and, when the *Nausea* is pretty well settled, I order two-thirds of a Grain of Opium, more or less, according to the Strength and Age of the Patient.

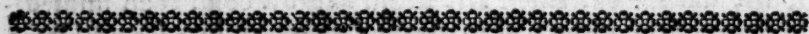
But

400 *Of the Dysentery, or Bloody-Flux.*

But if the Patient is convulsed, the extreme Parts cold, and the Pulse weak and intermitting, *twenty-five-Drops of Liquid Laudanum, in an Ounce of strong Cinnamon Water,* is more proper; and afterwards a Draught of any Wine in an equal Quantity of the Decoction. After this, he may take the Decoction to quench his Thirst, and a little Wine now and then as a Cordial.

To prevent a Relapse, repeat the Opiate in a moderate Quantity for some Days, Morning and Evening; and Care must be taken not to overload the Stomach, or to eat any thing but what is of good Nourishment, easy to digest, and grateful to the Stomach.

The above Prescription is to be used when the Patient is quite exhausted, but in ordinary Cases the Decoction itself may be trusted to. DOUGLAS. *Med. Essays.*



Of the DYSENTERY, or BLOODY-FLUX.

A *Dysentery* begins with *Shivering* and *Shaking*, succeeded by *Heat* of the whole Body, which are followed by Gripping of the Guts, and soon after by frequent voiding of slimy Stools, (with now and then one of the natural Kind,) attended with violent Pain, and a most troublesome pressing down or seeming Descent of all the Bowels, and this every Time the Patient has a Stool. In Process of Time, the Stools are mixt with Blood, and afterwards pure Blood is only evacuated, and the Intestines are affected with an incurable Gangrene. Yet sometimes there has been no Blood through the whole Progress of the Disease.

If the Patient is in the Flower of his Age, or has been heated with Cordials, he is very feverish, his Tongue is whitish, and beset with a thick Mucus; sometimes it is black and dry; he becomes excessively weak, and is quite destitute of Spirits; *Aphthæ*, or a Thrush, appear in his Mouth and Throat, especially if the Evacuation of the morbid Matter has been preposterously prevented by Astringents, and the *Fomes* of the Disease has not been expelled by Cathartics. Sometimes, when a Fever is absent, the Gripes lead the Van, and the rest of the Symptoms follow after. *SYD.*

Before this Disease appears in its full Force, the Patient feels a Languor of the Body, his Belly becomes tumid, and he complains of troublesome Commotions therein. It generally begins with Coldness and Shivering, then Heat, a quick Pulse
and

and intense Thirst. The painful Gripes either precede or immediately succeed the febrile Shivering. The Stools first consist of the intestinal Fæces, and Crudities and mucous Humours; soon after they are greasy, and almost intirely oleaginous; and last of all, they are frothy, mixed with Blood, or an ulcerous Sanies, as also with Pellicles and Filaments.

Those, whose Stomachs are loaded with much indigested Matter, are troubled with a Nausea, Reachings and Vomiting; many have an intolerable Heartburn and Anxiety of the *Præcordia*. All are afflicted with a perpetual Desire of going to Stool, and such a violent *Tenesmus* as is not seldom attended with a *Procidencia Ani*.

In some, the extreme Parts are cold, while the inward seem to burn, and a perpetual Sense of Heat and a Pulsation torture the Intestines. To these succeed Hiccups, cold Sweats, a pale Countenance, wasting of the Body, Inflammations, and *Aphthæ* of the *Fauces*. At last, all Pain ceases at once, the Thirst vanishes, the Stools come away insensibly with a cadaverous Stench, the Pulse becomes slender, and Death is at hand. This Disease is often contagious.

Prognostics. Dysenteries are dangerous to *pregnant Women*, to *old Men* and *Boys*. There is commonly little Hope when it attacks the *Scorbutic*, the *Consumptive*, and the *Cachectic*; those that are weak and afflicted in Mind, or troubled with Worms. When it begins with *Vomiting*, succeeded with Hiccups, there is Danger of an Inflammation of the Stomach. Nor is the Case better when the Stools are green, black, mixed with Caruncles, and of a noisome Stench. It is a fatal Omen when Clysters are immediately returned, or the *Anus* so obstinately closed that nothing can be injected, for it is a Sign of a Palsy of the *Rectum*. When the Pulse is weak, the extreme Parts cold, and the inward burn, or are without Sense, nothing good can be expected. When Swallowing is attended with a murmuring Noise, it shews the Approach of a *Delirium*, an Inflammation of the *Fauces*, *Aphthæ*, or a Palsy of the whole *Oesophagus*. It is necessary to know, that this Disease sometimes quickly terminates, especially if there be a malignant Fever, and then it kills in seven, nine, or fourteen Days; sometimes it does not cease till the fortieth or upwards; when it continues a long while, it either kills the Patient, or brings on a Dropsy, a Lientery, the *Cœliac Passion*, a *Tabes* or *Hæctic*, which are incurable. HOFF.

[The common Method of curing a Dysentery, is first to bleed, then to vomit with *Ipecacuanha*, afterwards to purge with *Rhubarb*, and last of all to give Astringents. Hoffmann directs a

Scruple or half a Dram of the *Ipecac.* with a *testaceous Powder*, drinking a large Quantity of warm Water after it. This Vomit is sometimes to be repeated. It is the modern Practice, after the first Vomit, to give two or three Grains of *Ipecac.* every eight or ten Hours, in a Bolus, with *Diascordium*, or the like, with some proper Julep. *Hoffman* would have the *Rhubarb* given in Substance, that is, half a Dram in Powder; *Dener* gives it twelve Hours after the Vomit, repeating it in small Doses. *Towne* recommends the following, as the best *Astringent*, after the said Evacuations:

1. R. *Conserv. Ros. rub.* ℥i ss. *Sperm. Ceti* ʒj. *Ceræ flav.* ʒiij. *Ol. Amygd. dulc.* ʒ ss. *Syr. è Cort. Aurant.* q. s. ut F. *Electarium pro re nata usurpand.*

When the Bowels are excoriated, he advises the following Clyster:

2. R. *Fuscul. ex Capit. Ovin.* ʒx. *Vitel. Ov.* N^o. ij. *Balsam. Locatel.* ʒj. *Electar. è Scord.* ʒ ss. *M. F. Enema.*

Sydenham, after Bleeding, prescribes a *Paregoric* at Night, and the next Morning a *Cathartic*, thus:

3. R. *Tamarind.* ʒ ss. *Fol. Sen.* ʒij. *Rhei* ʒi ss. *Coq. in q. s. Aquæ, Colatur.* ʒiij. *Dissolv. Mannæ & Syr. Ros. Solut. an.* ʒj. *M. F. Potio.*

This to be repeated twice more; and as soon as the Operation of each is over, a *Paregoric* is to be directed; but on the Days wherein Purging is omitted, it is to be given Morning and Night. When the Patient is faint he allows four or five Spoonfuls of a temperate Julep for a Cordial, and for common Drink boiled Milk with three Parts Water, or the *white Decoction*, thus:

4. R. *C. C. calcinat. & Mic. Panis alb. an.* ʒij. *Coq. in Aq. Fontan.* ℥iij. ad ℥ii. *postea q. s. Sacchar. albiss. edulcoretur.*

Or if Loss of Strength requires it, half a Pint of Sack may be boiled with a Quart of Water, which may be drank cold. After the third Purge, the Cure is to be perfected with *Laudanum* taken twice or thrice in a Day, and a Clyster of half a Pint of Milk and half an Ounce of *Venice Treacle*, which is to be injected now and then.

When *Bleeding*, *Vomiting*, and *Rhubarb* have proved ineffectual, some Physicians have prescribed the following Bolus:

5. R. *Philon. Londinens.* ʒ ss. *Rhabar. Pulv.* ʒ ss. *Syr. Caryophil.* q. s. *M. Bolus.*

As

As also the following Clyster, which in my Opinion is preferable to that of Sydenham's :

6. R. Amyl. ʒss. solve coquendo in Aq. Fontan. ʒvj. & adde Theriac. Androm. ʒij. M. F. Enema statim post Sedem injiciendum.

Mr. Ray, from the Information of Aubery, says, that the fungous Substance between the Lobes of a Walnut, dried and powdered, and given in a moderate Quantity in Wine, cured the English Army of a terrible Dysentery in Ireland, when all other Remedies failed. He adds, that others have recommended it as a Cure for a Pleurisy, by giving a Dram of it two or three Times.

Jussieu says, a thick yellow Bark, called *Simaruba*, has been found successful in the Cure of a Dysentery. The Dose is a third Part of a Quart of a Decoction made with two Drams of the Bark. And Cramer assures us, we may depend upon the same Effect from the Decoction of common *Millet-Seed*, called St. Ambrose's Syrup, which Luther looked upon as a Cure for the Colic. Count Argenton took it first by his Advice, merely to quench his Thirst, in the Manner of Tea, by which Means he got rid of his Thirst and Dysentery in twelve Hours Time. However, he observes, that Universals are to be premised; and that *Ipecacuanha* is to be given to an Adult in larger Doses than common, that is, *two Scruples and five Grains*. If the Patient is forced to rise in the Night more than twice, the Vomit is to be repeated the next Day, which generally did the Business without a third. By this Means he cured some Thousands in the Hungarian Army. But if the Disease is continued above four, or eight, or fourteen Days, *Emetics* are of no Use.

Another Specific is the *Vitrium Antimonii ceratum*, which has been in use for some Time, but was kept a Secret till it was communicated by Dr. Young, of Edinburgh, to the Public.

The Manner of preparing it is as follows :

Take of *Glass of Antimony* in Powder, one Ounce; *Bees-Wax* one Dram; melt the Wax in an Iron Ladle, then add the Powder; set them on a slow Fire without Flame, for the Space of half an Hour, continually stirring them with a *Spatula*; then take it from the Fire; pour it upon a Piece of clean white Paper, powder it, and keep it for Use.

This Quantity lost a Dram of its Weight in the Preparation; the Glass melts in the Wax with a very slow Fire. After it has been about twenty Minutes on the Fire, it begins to

change the Colour, and in ten more becomes near the Colour of Snuff; which is a Mark of its being sufficiently prepared.

The ordinary Dose for an Adult is ten or twelve Grains; but for greater Safety, I commonly begin with six; to a *strong Man* I have commonly given a Scruple, which has worked very mildly. To *weakly Constitutions* I give five or six Grains, increasing the Dose afterwards according to the Operation. To a *Boy of ten Years of Age* I give three or four Grains; to a *Child of three or four Years*, two or three.

I have given it in *Dysenteries with or without a Fever*, whether epidemic or not; and I have found it successful where Bleeding and Vomits have been premised, and where they are not.

I never give Opiates in the Beginning, especially where there is great Sickness; because, though Opiates give Relief to some, yet at other Times I have thought both the Sickness and Purging increased the following Day. I never began with a larger Dose than ten Grains, because it frequently operates as violently at first as twenty Grains at last, even upon the same Patient.

In its Operation, it sometimes makes the Patient sick and vomits; it purges almost every Person; but *I have known it to cure without any Evacuation or Sickness*; nay, in *violent Dysenteries*, the Stools are *less frequent* with it, than without it.

If it purges sufficiently, or fatigues the Patient, I intermit a Day or two between each Dose. I have cured some with one Dose, but have been obliged to give others five or six, especially when the first Doses have been too mild. After the second or third Dose the Stools are seldom bloody, the Gripes and Sickness abate much, and the mucous Stools grow less viscid. Give it on an empty Stomach, for then I think it operates most mildly.

Forbid drinking any Thing after it for three Hours, unless the Patient is very sick or disposed to vomit, in which Case give warm Water as in other Vomits. Beware of giving it for a *Diarrhœa* in the End of a Consumption. *I have cured other Diarrhœas of a long standing with large Doses of it*; but it has failed oftner here than in Dysenteries.

I forbid the Use of all fermented Liquors, and recommend a *Milk-Diet*; with Rice or Bread; Chicken Broth or Water-Gruel. I give nothing cold unless a Tea-spoonful of Jelly of Hartshorn as often as the Patient requires it; and sometimes I indulge them with the Jelly of Currants to refresh their Tongues.

It may be given safely to *pregnant Women*; and to *sucking Children* you may give half a Grain.

Mr.

Mr. Paisley, Surgeon at Glasgow, speaks of it thus: At first I gave only seven Grains for a Dose, which was gradually increased to fourteen, to such as were judged strong enough to bear it; making it into a *Bolus* with *Conserv. Rosar. Diascordium* or *Theriac. Edinens.* allowing for Drink *Water-Gruel* with or without Milk; at other Times *Emulsions, Tea, or weak Broth*; and always an Opiate after the Operation. It sometimes vomited, always purged without Gripping, or but very gently. When it vomited, it made the Patient sick before the Operation; but the Sickness went off as soon as the Medicine worked downwards.

As the Disease was epidemic, and attended with a Fever at the Beginning, I first of all bled the Patient, and gave the Powder every other Day, and in the intermediate Days a light Cordial, and if there was great Pain in the lower Belly or *Rectum*, an emollient Clyster.

Four or five Doses, when taken in Time, perfected the Cure; but where the Disease was of long standing, I have used twelve or fifteen Doses, and never once saw any bad Effect from it.

I have tried it in *Diarrhæas, Dysenteries, and Colic Pains* from Viscidities in the Intestines, and found it a safe, easy Purgative, sometimes a gentle Emetic, and a surer and speedier Cure than by the common Methods.

Mr. Gordon, Surgeon at Glasgow, speaks thus of it: In the Harvest Time, 1736, many People were carried off with a *Diarrhæa* and a *Dysentery*; upon which I tried the *Stibium Ceratum*, and never missed of Success in some Hundreds, except in one or two Cases, where the Patients were quite exhausted before they took it.

I prepared it as fine as *Calomel* usually is; three Grains is a Dose; I never exceeded five. One or two Doses frequently perfected the Cure, I seldom gave three. It was taken in the Morning, and was often two Hours before it operated; some it only purged, others it purged and vomited, making them sick for six or eight Hours. A good Dose of *Opium* was always given at Night.

Mr. Stephen gave first two Grains for a Dose, and increased a Grain every Dose; giving an Opiate at Night. Of an hundred and ninety Patients he lost but one, who turned *hectic*, and died about the thirty-sixth Day. He never gave it where there was a strong Fever, a *hectic Disposition*, or a *colliquative Diarrhæa*.

Dr. Pringle gives the History of two remarkable Cures, but too long to be inserted. Mr. Brown, of Dalkeith says, a Man

about Forty was so reduced by a Dysentery, that he could scarce walk or sit upright. The common Method being tried in vain, he took three Doses of the Powder, of nine Grains every other Day, which, with a proper *Regimen*, performed a Cure.

One of Eighteen had struggled with this Disease three Months, with Gripes and Loss of Appetite; after Bleeding, he took three Doses of six Grains each, which suppressed, but did not entirely remove the Dysentery; but three Doses more of nine Grains effectually carried it off.

The following Cases are from Professor Simpson.

One *Jervey*, upwards of Twenty, had a severe Dysentery; he had scarce any Interruption in his Purging, attended with great Anguish and Sickness, by which he was greatly reduced. I gave him fourteen Grains, which made him easier in twenty-four Hours. The next Day he had a Clyster of Whey and Camomile Flowers, but grew worse. The third Day he took another Dose without Success, which I ascribed to his catching Cold in going to Stool. Two Days after I persuaded him to a third Dose, and he was so sensible of the good Effects of it, that he took a fourth, which relieved him most of all. I ordered a fifth, to prevent a Relapse.

A Woman had a Dysentery for ten Days, with Horror, Gripes, Sickness, &c. Ten Grains given every other Day for three Times recovered her.

A young Lady took seven Grains of the *Mercur. præcip. Wurt.* for a Vomit, at Eight in the Morning, which by Eleven had operated five Times. She continued sick for twelve Hours, and then began to vomit and purge, which continued till the next Morning. Then she took liquid Laudanum, which eased her that Day, but the next, her Purging returned with Blood and Gripes. I gave her six Grains of the anti-dysenteric Powder. It was six Hours before she had a Stool, which was free from Blood and of its natural Form.

A Boy of Fourteen had a Dysentery for a whole Year; I gave him a Dose of six Grains: His first Stools were bloody; the second Day he was easy; the third, his Stools were again bloody; the fourth, he had a second Dose, but did not purge, and was free from Gripes. The next Day his Stools appeared to form, though interspersed with Blood, which, after this, disappeared. I gave him two Doses more, to prevent a Relapse.

An old Man of Seventy was cured of a severe Attack with two Doses of six Grains each.

A Wq-

A Woman, in the fifth Month of her Pregnancy, had a violent Dysentery and Tenesmus. The third Dose cured the Dysentery, and Clysters of Milk and Camomile Flowers the Tenesmus.

One who fell into a Dysentery through Fatigue and Cold, was quite cured by three Doses.

Another was cured by three Doses of six Grains each.

February 1st, 1737, the Dysentery proved epidemic. I cured a great Number by this Medicine, and none required above a third Dose.

I gave it to a Woman the tenth Day after Child-bed with Success.

One Woman, who was brought very low by the Disease, drank under it large Quantities of cold Water, and died. Her Husband at the same Time recovered by its Use.

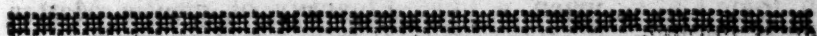
In UTERINE HÆMORRHAGES it has been equally successful. One *Simson*, after a Miscarriage of three Months, continued Flooding easily for four Weeks. On the fifth it was so violent that she fainted perpetually, and seemed ready to expire. Upon taking six Grains the Flux abated in half an Hour, and in less than four Days she was quite free from her Disease.

I gave it to an old Woman in a Uterine Hæmorrhage, which had been for some Time familiar to her, with equal Success.

Another Woman miscarried, but the *After-Birth* did not come away. Blood continued to ooze from her for three Months; at length it increased so much, that she had an Evacuation of a Pound at a Time, with Faintings and great Uneasiness. Six Grains of the Powder gave her more Disturbance than I had found it do in any other Case. A large Quantity of the *Placenta* came away, loaded with *Grape-like Hydatides*.

A Man of Seventy had been troubled with Gripes for eight Months, with now and then a Looseness. He at length voided two or three Gills of Blood in a Day. After continuing thus for five Days, I gave him six Grains of the Powder; the first Dose lessened his Flux, the second quite cured him.

Bontius, in his Account of the Diseases of the *East-Indies*, affirms, that Extract of Saffron is a Specific in the Dysentery of those Parts, even though it should proceed from Poison.



Of the HEAD-ACH.

THE *Head-Ach* is a most troublesome Sensation in the nervous Membranes of the Head, produced by various Causes, and attended with different Symptoms, according to its different Degrees, and the Place where it is seated.

The most common Seat of this Disease is the *Pericranium*, a Membrane which invests the Skull, coheres with the Muscles next the Skull, and is joined to the *Dura Mater* by some Fibres which pass through the Sutures. It is a thin nervous Membrane of exquisite Sense. It may likewise be in the Skin that covers the Skull, and in the *Dura Mater*; this last but seldom happens; but when it does, it is very dangerous. There may likewise be a very acute Pain in the thin Membrane which covers the *Sinus* of the *Os Frontis*.

If the Head-Ach be slight, and affects a particular Part of the Head, it is called *Cephalalgia*; if the whole, *Cephalæa*; if one Side only, *Hemicrania*; if there is a fixed Pain on the Forehead, which may be covered with the End of the Thumb, it is called *Clavus hystericus*.

The general Cause of the Head-Ach is a Hindrance of the free Circulation of the Blood through the Vessels of the Head.

When the Blood rushes with Impetuosity, and in too great Plenty into the Membranes, which may happen to the *Plethoric*, to those whose usual Bleeding at the Nose is suppressed, and to young Persons, there is a Pain in the whole Head, which becomes hot, swells, aches, and looks red; the Vessels swell, and there is a strong Pulsation in those of the Neck and Temples. The Nostrils are dry and parched, there is a burning Heat and Drought in the *Fauces*.

When the Vessels of the Head are stuffed with a *mucous Serum* from a Stoppage of the Running of the Nose, then there is a heavy, obtuse, pressing Pain, chiefly in the Fore-part of the Head, in which there seems to be such a Weight, that the Patient can scarce hold it up. Sometimes the Skin is so swelled, that it will pit.

Sometimes it happens from the serous, sharp, caustic Matter of the *French Disease*, which infects the *Pericranium*, and often causes a *Caries* in the Skull.

Sometimes it may proceed from Matter of a saline caustic Nature, driven back from the external Parts; as, in the *Gout*, *Itch*, *Erysipelas* of the Head, *Gutta rosacea*; in the *Small-Pox* and *Measles*, before the morbid Matter is expelled to the outward Skin, or, which is worse, when it is driven back. In these Cases, when a small Quantity of caustic Matter causes the Pain, it rather proceeds from a violent Stricture of the Membranes than from their Distension.

There is likewise a most violent, fixed, constant, and almost intolerable Head-Ach, which brings on a Debility both of Body and Mind, hinders Sleep, disturbs Digestion, destroys the Appetite, causes a *Vertigo*, Dimness of Sight, Blindness, a Noise

Noise in the Ears, Convulsion, and the Epilepsy; and, by Consent of the other nervous Parts of the Body, produces Vomiting, Costiveness, Coldness of the extreme Parts, and the Countenance of a dying Person.

Sometimes the *Head-Ach* is symptomatic, and attends upon continual and intermitting Fevers, and especially the *Quartan*; irregular Flowing of the *Menses*, the *hypochondriac Passion*, and the like. A *Hemicrania* generally proceeds from a Fault in the Stomach, from Crudities or Indigestion, and commonly appears when Digestion is performed.

The Head-Ach is not always without Danger: If the Cause of the Pain is within the Skull, and is violent and constant, attended with a Fever, and want of Sleep, it portends a *Phrensy*. If it suddenly attacks the *Hypochondriac*, or those that are prone to Melancholy, especially if preceded by a violent Passion of the Mind, and deprives the Patient of Sleep and Appetite, and is joined to Difficulty of Hearing, and an internal Pulsation of the Vessels, and all these without a Fever, it presages *Madness*. But when the Pain in the Head is sudden, and very acute, with a Noise in the Ears, difficult Walking, a Weakness of the Knees, an Impediment and Slowness in Speech, it is the Forerunner of an *Apoplexy* or a *Palsy*; in which last the Pain is greater on the well Side than the diseased, because the latter has lost all Sensation*. When young Persons have frequent Head-Achs, it is a Sign they will hereafter be afflicted with the Gout.

The *Curative Indications* are, 1. To divert the Impetus of the Blood and Humours from the Head, and to discuss them by suitable Remedies. 2. To relax the spastic Strictures of the Membranes of the Head, the Cause of which is a sharp Caustic Matter, that the Fluids may have a freer Circulation. 3. To correct the peccant Matter, and evacuate it gently through the most convenient Emunctories. 4. To prevent a Return, by strengthening the whole nervous System by proper Remedies, and especially by an accurate Diet, and a suitable Regimen.

When the Blood rushes to the Head in too great Quantity, *Bleeding is necessary*, more particularly under the Tongue, in the Forehead, in the Jugulars, or by Leeches behind the Ears. If the Body abounds with too much Blood, it will be best to bleed in the Ankle first, and the next Day, or the Day after, in a Vein about the Head. But first of all cleanse the Body by any emol-

* I was very lately a very unhappy Witness to the Truth of this Observation: An Apothecary in my Company was suddenly struck with a Palsy on the left Side of his Body. He complained as well as he could of a Pain in the right Side of his Head, and a great Tingling in the Paralytic Side. His Memory was almost immediately lost.

lient Clyster, or by giving an Infusion of *Rhubarb* and *Manna*, with *Cream of Tartar*.

To restrain the *Orgasm of the Blood*, it will be proper to give a diaphoretic and absorbent Mixture, with *diaphoretic Antimony*, purified *Nitre*, burnt *Hartshorn*, and *Diacodium*, diluted with a sufficient Quantity of suitable simple distilled Waters. Or the following Emulsion:

1. R. *Nucleor. Persicor. Amygdal. amar. an. 3j. Sem. Papav. alb. 3ij. Aq. Rosar. Alexeter. simp. Cortic. Aurant. simp. an. 3ij. M. F. Emulsio. Adde Nitri 3fs. Camphor. in Ol. Amygdal. solut. gr. v.*

But if the *Head-Ach* proceeds from a *copious vitiated Serum*, stagnating in the Membranes, either within or without the Skull, with a dull, heavy, continual Pain, which will neither yield to *Bleeding*, nor gentle *Laxatives*, then more powerful Remedies are required to dissolve the thick glutinous Humours, and to carry them off by Stool.

2. R. *Gum. Ammon. depurat. Sagapen. Myrrh. Elect. Aloes Socotrin. Extract. Hellebor. nig. Resin. Jalap. Mercur. dulc. Cinnab. ppt. an. 3fs. Extract. Croc. Pulv. Castor. Sal. Succin. an. gr. xv. M. F. Pil. ex. 3j. No. xii. quorum sex Vesperis & sex postero Die Mane sumi possunt.*

On the Day these Pills are taken, let the Patient take nothing but thin Broths. After three Days they may be repeated again. When the vitiated Serum has been sufficiently evacuated, then give *strengthening Remedies*, mixed with *Diuretics*. At the same time the Patient should use Exercise to make him sweat, with strong Frictions, and such Aliment and Liquors as tend to promote a Discharge by Urine.

If this Method fails of Success, apply a Blister, made with an Ounce of the *Emplastrum attrahens*, and a Dram of *Cantharides*, adding a few Grains of *Camphire*. It may be of the Size of a Crown Piece, and applied to the Nape of the Neck; it should be often renewed, and continued for a long Time. When the Disease is evident to the Sight and Touch, from the Serum stagnating under the Skin of the Head, a *Blister* may be laid all over the Head with great Advantage.

When there is an *intense Pain remaining fixed in one Place*, lying pretty deep in the Membranes, the Herb *Ranunculus*, used as a *Vesicatory*, has a wonderful Efficacy. It is the upright *Meadow-Crawfoot*, with Leaves like the *Anemone*, and, if tasted, is extremely biting to the Tongue. The Leaves must be bruised in a Marble Mortar, and the Part, if hairy, shaved; then a *sticking Plaister* is to be laid on it, with a Hole about the Bigness of a Silver

Silver Penny, and the Leaves over that; just in the same Manner as a Caustic. This is an Experiment of *Chefnau's*; and I have had the like Success, by mixing equal Parts of *volatile Sal Ammoniac*, and *Powder of Mustard Seed*, laying it on the Part in the same Manner.

When it is caused by a Suppression of a *Coryza*, or *Running of the Nose*, a Smelling-Bottle of volatile Salts should be held frequently thereto. Or the Patient may take *Herb Snuff*, with the Addition made of *Flowers of Benjamin*, and *Powder of Cloves*.

When the *Head-Ach* arises from a *corrupted Mass of Blood*, and an *impure Serum*, as in the *Scurvy*, and *Lues Venerea*, a *Decoction of the Woods*, with *crude Antimony*, may be serviceable, after Evacuations, with the Pills recommended above. *Fasting* a Day now and then, with *Labour* and *Exercise*, will likewise be useful; as also a *Sudorific*; for which Purpose, I advise the following Powder:

3. R. *Cinnab. nativ. ppt. Calc. Antimon. five Bezoar. mineral. Sal. Volat. Corn. C. Nitr. purificat. an. gr. x. Camphor. gr. ss. M. pro Dosi; superbibendo Haustus Decocti Lignorum.*

A *Hemicrania*, especially a periodical one, is generally owing to a Foulness in the Stomach and *Primæ Viæ*, for which *gentle Emetics* will be beneficial, as also *Purgatives*, to derive the Humours from the Head; afterwards *Stomachics*. If it proceeds from profuse Evacuations of the *Menses*, or *Hæmorrhoids*, those Fluxes must be reduced within bounds.

If the *Head-Ach* is so intolerable as to endanger the Patient's Life, or is attended with continual *Watching*, *Fainting Fits*, a *Fever*, an *Inflammation*, or a *Delirium*, Recourse must be immediately had to *Opiates*, with *native Cinnabar*, after a *Clyster* has been first given. Externally, I know nothing more efficacious than the following *Liniment*:

4. R. *Ol. Nuc. Moschat. express. 3 ss. Styrac. Calamit. Oliban. an. 3j. Extract. Croc. Balsam. Peruv. an. 3 ss. Ol. Lign. Rhod. gutt. xij. M. F. Linimentum spissius.*

This must be spread upon a small Bit of Leather, and applied to the Temples. When the Pain is mitigated with *Anodynes*, a *gentle Cathartic* will be necessary.

When there is an intolerable Pain in the *Sinuses* of the Nose, or the boney *Sinuses* of the Head, produced by an Extravasation of some Fluid, the only Cure is Scarification of the Nostrils, or causing the Nose to bleed with a Straw suddenly thrust therein.

If there is an Extravasation under the *Pericranium*, and the Humour is so sharp as to begin to render the Bone carious, then Recourse must be had to an Incision, as in a Whitloe.

In some Kinds of Head-Ach, it will be proper to open the frontal Vein.

Some advise Bleeding in the *Temporal Artery*, but this I have never tried, because Bleeding in the *Jugular Vein* will answer the same End; but if any think it expedient to open a Vein in the Temples, it is safest near the Articulation of the lower Jaw.

When the Patient's Strength will not bear the Loss of Blood, temperate *Pediluvia* will be beneficial, and strong Frictions of the Feet with a coarse Cloth; as also Cataplasms of Horse Radish and Salt laid thereto.

If the *Head-Ach* arises from a sudden Orgasm in the Blood, proceeding from Heat, Exercise, or Labour, Evacuations of any Kind are not then proper; but rather cooling Draughts, with Nitre. HOFF.

Camphire, dissolved in any cephalic Spirit, and snuffed up the Nostrils, will allay the Pain in the Head. GROENVELT. Or the Juice of *Ground-Ivy*. RAY. *Marum Syriacum* is almost a Specific in an obstinate Head-Ach; the Dose is half a Dram. ANON.

Of the H E A R T - B U R N .

THE *Heart-Burn* is a Pain more or less violent about the Pit of the Stomach, with *Anxiety*, a *Nausea*, and often a *Retching*, or actual *Vomiting*.

The Causes are *vitiated Humours* in the Stomach, vellicating and gnawing the Stomach itself, or its left Orifice, which the Ancients call *Cardia*. Hoffman thinks the right Orifice, that is, the *Pylorus*, is the Seat of this Disease. The Stomach thus irritated, a painful Sensation is excited, and *spasmodic Constrictions*, which occasion a *Nausea* and *Vomiting*. But common *Heart-Burns* are generally without Vomiting. The *Heart-Burn* may also proceed from *Wind* and *Indigestion*, and now and then from *Worms*; but more frequently from *Congestions of Blood* about the Stomach, which may happen to those who are full of Blood, but more especially to the *Hypochondriac* and *Hysteric*, when vomiting of Blood not seldom ensues. It may likewise accompany *acute Fevers*, but especially the *Malignant*.

The Cure of a common *Heart-Burn* from Indigestion, and the Acrimony of the Contents of the Stomach, which chiefly happens

pens in a Morning with Wind, may be performed only by drinking *Tea* or *Coffee*; or a *Decoction* of *Camomile Flowers*; as also by taking *Bitters*, or a *Dram* of *Powder* of *Orange Peel*, or *Camomile Flowers*, in a small *Glass* of *Wine* made pretty hot, and sweetened with *Sugar*. The *testaceous* and *absorbent Powders* are excellent in this Case; such as the *Tabellæ Cardialgiæ*, or *Lozenges* for the *Heart-Burn*, which may be carried in the *Pocket*, and taken at *Pleasure*; about a *Dram* is sufficient for a *Dose*. The following *Jalap* will answer the same *End*:

1. R. *Cretæ alb. ppt. ℥ij. Gum. Arabic. ʒiss. Sacchar. alb. ℥ij. superaffunde Aquæ bullientis Cong. j. & adde Aq. Cinnam. Spir. ℥ij. F. Jalapium. Capiat ad libitum.*

When it arises from a *Crapula*, gentle *Emetics* will be useful. If the *Patient* begins to vomit, without them, large *Draughts* of warm *Water* will assist to cleanse the *Stomach*; or *Carduus Benedictus* *Tea* taken freely.

If the *Cardialgia* proceeds from a *Congestion* of *Blood*, and the painful *Spasms* then arising, *Bleeding* will be convenient, and *Emetics* hurtful. If the *Menses* are stopped, bleed in the *Foot*. Then give *Antispasmodics*; thus,

2. R. *Fol. Basilic. Betonic. Veronic. Salv. Flor. Chamæmel. an. M. j. Sem. Fœnicul. Anis. an ʒij. M. F. Species.*

An *Infusion* of some of this *Species* must be drank every *Morning* as *Tea*. Also the following *Pills* must likewise be taken every *Evening*:

3. R. *Extract. Flor. Chamæmel. Millefol. Salv. Card. Benedict. Mithridat. an. ʒj. Croc. Castor. an. ʒj. M. F. Pilulæ ex Scrupulo uno. N°. xx. pro una Dosi. HOFFMAN.*

Likewise the following *Powder* may be given in a proper *Vehicle*, two or three *Times* a *Day*:

4. R. *Rad. Valerian. sylv. Calc. Antimon. Pulv. è Chel. Cancror. comp. an. ʒj. Cinnab. nativ. ppt. Nitr. Purif. an. ʒss. Castor. pulv. gr. viij. M. F. Pulvis. Dosis est Scrupulus unus.*

Nor must *anodyne* and *emollient Clysters* be omitted. It will likewise be proper to apply a *Bladder* filled with a *Decoction* of *Chamomile*, pretty hot, to the *Stomach*. After *Recovery*, *Riding* will be convenient to regain the lost *Strength*. HEISTER.

In all *Heart-Burns*, *emollient Clysters* will be proper to be injected two or three *Times*; or *Clysters* of the *Carminative Seeds* boiled in *Milk*. Outwardly, the following *Liniment* is of wonderful *Efficacy*:

5. R.

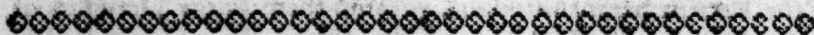
Of the Tooth-Ach.

5. R. *Tberiac. Androm. Ol. Nucis Express. an. 3j. Castor. Croc. Bals. Peruv. an. ʒj. Ol. Junip. Caryophyl. an. gut. xx. Camphor. ʒss. M. F. Linimentum.*

As also a Bag filled with the following Species :

6. R. *Fol. Menth. Flor. Chamæmel. Sambuc. an. M. j. Baccar. Laur. Junip. an. ʒss. Sem. Cymin. Carui, Caryophyl. Nuc. Moschat. an. ʒij. M. F. Species quæ succulo possunt includi & calidè parti affectæ applicari.*

If *Worms* are the Cause of the *Heart-Burn*, no acrid *Anthelmintics* must be given, but warm Milk mixed with Oil of Sweet Almonds, which, if drank in sufficient Quantity, may cause them to be thrown up. HOFFMAN.



Of the T O O T H - A C H.

THE *Tooth-Ach* is caused by *impure Serum*, which corrodes and rends the *Ligaments* and *nervous-glandulous Coats*, by which the Roots of the Teeth are kept firm in their Sockets, and wherewith they are invested.

It is a kind of, *Rheumatic Disorder*; for we have often observed that Pains of the Joints and Shoulders have shifted to the Side of the Head, and have invaded the Teeth and Gums with violent Pain. On the contrary, Pains of the Head and Teeth have fallen into the Arms and Shoulders.

The Seat of the *Tooth-Ach* may also be in the Cavity or internal Parts of the Teeth themselves, that is, in the little *vesicular Cord* composed of the nervous Membrane, an Artery, a Vein, and a Lymphatic Vessel, which may either be *distended* by *stagnating Serum*, or be affected with a *spastic Constriction*, especially if the Tooth is *carious*; and the *Caries* reaches the said Cord.

As in the *Gout* there is a *Pain, Redness, a Tumour, and a little Fever*, so they sometimes appear with the *Tooth-Ach*. There is also frequently a copious Discharge of *Saliva*, which proceeds from a *painful Spasm*, which constricts the Lymphatic and Venous Vessels.

As the *Rheumatism* appears in temperate, and a sudden Change of Weather; so it is with the *Tooth-Ach*, especially when the Weather is hot and cold by Fits.

The whole *Intention of Cure* consists in deriving and diverting the *impure scorbutic Serum* from the Head, then carrying it off through proper Emunctories; and afterwards in strengthening the Parts.

This

This is to be done by *saline, emollient, purgative, Clysters*; by warm *Pediluvia* of Rain Water and Wheat Bran; with *Venice Soap*, and used just before Bed-time; by *Laxatives* of *Manna* and *Cassia* dissolved in Whey, or Asses Milk, or mineral Waters. If the Patient is plethoric, or full of Blood, Bleeding in the Foot will derive the Humours from the Head.

Sudorific Remedies are also proper, but more especially an Electuary made of *Rob* of *Elder Berries*, burnt Hartshorn, diaphoretic Antimony, and a few Grains of Nitre, which cannot be too highly praised. Or an Ounce of the *Rob* may be taken in Broth to promote a *Diaphoresis*; and it may be used externally, dissolved in Beer, in the Manner of a Gargle, which will yield immediate Relief to the Patient.

When the Patient is subject to *Catarrhs*, is *scorbutic* or *cachectic*, then *mineral Waters* are most proper; and if the Patient is of a weak bilious Constitution, the Water should be mixed with *Asses Milk*.

Outwardly may be applied Bags, filled with *paregoric* and *emollient Species*, such as *Elder*, *Melilot*, and *Camomile Flowers*, *Bay* and *Juniper-Berries*, *Carraway* and *Millet Seeds*, and *decrepitated Salt*. They must be laid on warm, and are very safe.

A Drop or two of *Oil of Cloves*, or *Box*, applied to a *carious Tooth* with Cotton, are Medicines not to be despised. *Camphorated Spirit of Wine* mixed with *Saffron*, *Castor*, and *Opium*, made into a Liniment, and laid to the Gums and hollow Teeth, often gives the Patient Ease.

When the *Tooth-Ach* proceeds from a rotten, hollow Tooth, it will be best to burn the little nervous Cord, which is the Seat of the Pain, with an *actual Caustery*; and then the Cavity may be filled up with a Mixture of *Wax* and *Mastich*. I have known this attended with great Success.

If this cannot, or is not permitted to be done, the only Remedy left it to have the Tooth drawn. But if the Patient is *plethoric*, it will be safest to bleed first, for fear of a *fatal Hemorrhage*.

When every thing else fails, I have had great Success from the following Pills:

- i. R. *Pil. Aromat.* ʒj. *Pil. è Styrace* ʒss. *Extract. Croc.* gr. vi. *M. Pil.* No. lx.

Six or eight of these Pills are a Dose, and are best taken at Bed-time. HOFFMAN.

A small Pill, made of equal Quantities of *Camphire* and *Opium*, and put into a hollow Tooth, is often beneficial. Some greatly recommend a small Plaster of *Tacamahac* laid on the Side of the

the Face, upon the Articulation of the Jow-Bone, or upon the Temples.

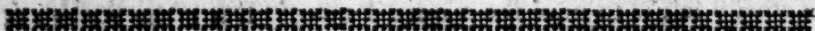
But above all which I have hitherto known, the Root of *Iris lutea*, or the *Yellow Water Flower de Luce*, rubbed upon the Tooth that is painful, or the Root itself chewed in the Mouth, in an Instant, as if by a Charm, drives away the Pains of the Teeth, arising from what Cause soever. The Person who recommended it to me had tried it forty Times at least, with Success. I have tried it myself, and many others have done the same by my Recommendation, and I hardly ever knew it fail.

ALLEN.

It is now become a Practice, especially in *France*, upon drawing a sound Tooth, to replace it in its Socket; where, with proper Precautions, it will fasten again. *Musgrave* is the first that I know of who recommends this Practice. After the Extraction of the Tooth, he advises a Gargle of *Honey*, mixed with the Juice of the Herb *Mercury*, common Salt, and *Spring Water*, and then to put it in its former Place; and adds, it will become more useful than before.

The *French Operators* have improved this Hint; and when the Tooth is rotten, or otherwise unfit to be replaced, they put another sound human Tooth in the Room of it, when it can be had; otherwise one of any other Animal, that is of a Size suitable for the Purpose.

De la Motte, in the Tooth-Ach, advises to make a small round sticking Plaister, about the Bigness of a Silver Groat, and to put a flat Bit of *Opium* in the Middle of it, of a Size not to prevent the Adhesion of the other. This is to be laid on the Artery near the Cavity of the Ear, where the Pulsation is most sensible. He affirms, there are few Cases that this will not relieve.



Of the E A R - A C H.

THE *Ear-Ach* is a grievous Pain in the *Meatus Auditorius*, or Cavity of the Ears, proceeding from a sharp, extravasated Serum, affecting the nervous Membrane which lines the *Meatus Auditorius*.

This Disorder frequently attacks those who are subject to *rheumatic* and *serous Defluxions*; or it may arise from a sudden Suppression of Sweat, or from the Head being exposed to cold Winds when it is moist with Sweating. The Cause is often an *Inflammation* or *Ulcer* of the Ear, attended with a remarkable Heat,

Heat, and *tensive beating Pain*, a *Redness*, a *Fever*, and even sometimes a *Delirium*. Sometimes it is excited by *Worms*, and then there is a wandering, cutting, gnawing Pain.

The *Ear-ach* is sometimes a Symptom of *acute Fevers*, when the *morbific Matter* is translated to the Ear, as in the *Hungarian Disease*, when *Deafness*, or Difficulty of Hearing, arises. When it happens in the Declension of a Fever, it is a certain Sign of Recovery; but then the Disorder is in the *internal Part of the Ear*, and the *auditory Nerve*. When the Matter is translated to the external Part, then the *Ear-ach* arises, which, unless speedily appeased, may deprive the Patient of Life. Those who have the *Ear-ach* from a Fall, and a *sanious Matter* runs out of the Ear, are all carried off.

The principal Scope is to *ease the Pain*, which may be done with *nitrous* and *cinnabarine Powders*, and with Emulsions of the greater cold Seeds; but if these are ineffectual, we must have Recourse to *Opiates*, such as the *Syrax Pills*, or the *Thebaic Tincture*.

Outwardly, lay a Plaister to the Temple of the affected Side, composed of *Mastich*, *Galbanum*, *Saffron*, expressed *Oil of Nutmegs*, and *Opium*. Afterwards let the Ear be held over the Vapour of Milk, with the fragrant and emollient Species. Also, fill a *Hog's Bladder* with the Decoction of Milk, of Flowers of *Mallows*, *Mullein*, *Elder*, *Mellilot*, *Camomile*, *Linseed*, and a little *Saffron*, and apply it to the Part affected. Likewise the Smoke of *Tobacco* blown into the Ear, and an Infusion of *Millepedes* in Sallad Oil, are thought to be of great Efficacy when the Inflammation is caused by a *sharp Serum*. HOFF.

Camphorated Spirit of Wine, especially with *Saffron*, made pretty hot, and a few Drops of it put into the Ear with Cotton Wool, is a great Resolvent; it should also be rubbed into the Parts behind the Ear. Or *Oil of Almonds* with *Camphire* may be used in the same Manner; laying over either of them a hot Bag filled with *resolvent Herbs*, as *Sage*, *Penny Royal*, *Wild Thyme*, *Wild Marjoram*, *Camomile Flowers*, *Florentine Orris*, *Fennel* and *Caraway Seeds*, with *Camphire*. When the Patient is plethoric, *Bleeding* is convenient.

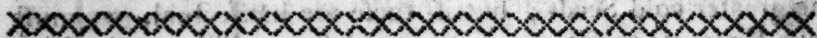
The most violent *Ear-ach*, from taking cold, may be infallibly cured, in a very short Time, by applying the Ear close to the Mouth of a bellied Jug, filled with a hot strong Decoction of *Camomile Flowers*.

When the Inflammation will not resolve, a *Pultice* of white Bread and Milk, or Onions roasted under the Cinders, or the like, may be often laid hot to the Part affected, till it breaks, or the Abscess is evident to the Eye. HEISTER.

If the Ear-ach is caused by any Thing got into the Ear, it will be best to relax the Membranes, by Oil of Almonds, and then cause the Patient to sneeze, which forces it out, as I have often experienced.

When there is a *copious Flux from the Ear* after an *Abscess*, the Humours must be diverted by *gentle Laxatives, Blisters, Cupping, and Pedilavia*, if the Patient is an Adult. It should not be suddenly stopped by Externals.

When a Pain in the Ear arises in acute Fevers, with a Swelling of the *Parotid Glands*, nothing yields more speedy Assistance than *Cupping in the Neck with Scarification*, and an emollient Pultice of fat Figs, Saffron, Honey, Juice of roasted Onions, and white Lily Root, applied to the Part affected. *Worms* may be enticed out of the Ear by warm new Milk, or killed with Oil of Wormwood or Almonds.



Of the STONE in the GALL-BLADDER.

THE Signs of it are a fixed Pain in the right *Hypochondrium* in the Region of the Liver, which is constant, pressing, heavy, and sometimes acute; often attended with an ill Colour in the Face. The Pain sometimes reaches to the Epigastric Region, and the Pit of the Stomach; and the Exacerbation is so great, at certain Intervals, that the Gripes and Torture affect the whole Cavity of the *Abdomen*; joined with Inappetence, a *Nausea*, Reaching to vomit, Anxiety of the *Præcordia*, *cardialgie* Anguish, Costiveness. At length, if the Disease is obstinate, and will not yield to the best Remedies, the Jaundice supervenes. Some of these Patients are continually afflicted with Gripes, and live in this Condition for many Years, and generally die of the Dropsy. Some feel a heavy, obtuse, deep, obstinate Pain, with a tense Weight, when the Gall-Bladder is greatly distended with small soft Stones.

If the Pain continues very intense and sharp, it draws the whole System of the nervous Parts into Consent, causing spastic Strictures, not only of the adjacent Parts, but also of the remote; Distentions of the Arms and Joints, epileptic Convulsions, and likewise a Fever with a hard quick Pulse, which shews a large rough Stone is firmly fixed in the biliary Ducts, that will soon hurry the Patient out of the World.

But nothing is a more certain Sign that these terrible Disorders proceed from Gall-Stones than when they are voided with the Excrements; and then all the Symptoms cease at once,

once, except the Jaundice, which disappears by little and little, or is easily cured.

If the Stones are soft, and of a light Colour; or are tophaceous and like Mortar of Plaster, they most probably proceed from the *Hepatic Ducts*: If they are rough, hard, angular, and of a deep Colour, from the *Gall-Bladder*, especially if attended with most cruel Symptoms in their Passage through that slender Canal. However, *Stones* have been found in the *Gall-Bladder* after Death, which have produced no extraordinary Symptoms.

Sometimes these Pains and Spasms return periodically.

There are two Times of the Disease, which require two different Methods of Treatment; in the Fit and out of the Fit.

In the Fit, the Spasms are to be appeased with *Anodynes* and *Demulcents*, such as Oil of Sweet Almonds, and fresh *Spermaceti* internally. Externally, the Fat of a wild Cat, or a Beaver, &c.

Demulcents are Milk, sweet Whey, Emulsions of the cold Seeds, Infusions or Decoctions of Marsh Mallow Roots, with wild Poppies, Elder, Syrup of Marsh Mallows.

Powders may be made with Crabs Eyes, Cinnabar, and Nitre, with a little Saffron, Powder of Earth-worms, Elks' hoofs, &c.

Externally, emollient Epithems, and *Sacculi*, filled with carminative Ingredients. As also lenient Clysters, and Laxatives of Manna, Rhubarb, Cream of Tartar, and the like.

For a Laxative:

1. *R. Mann. ℥ij. Crem. Tartar. ʒiss. Nitr. purificat. gr. xij. Ol. Amygd. dulc. ʒiss. M. F. Potio.*

Let it be taken in a Morning by little and little.

Out of the Fits, opening Infusions and Decoctions; which resolve, discuss, and promote Excretions; such as *Rub. Tinctor. Dog-grass, Rad. Gramin. Asparag. Petroselin. Pimpinell. Aristoloch. Curcum. Cichor.* afterwards adding *Rhubarb, Terra Foliat. Tartar.* or, *Sal. Polychrest.* and Syrup of Marsh Mallows, which must be used a long while.

Some praise the Roots of *Dog-grass*, and the Juice of *Dog-grass*, as a Specific.

2. *R. Rad. Gramin. mundat. M. j. Glycyrrhiz. exsicc. Coquantur in Aq. ℥iij. Sub finem adde Nitr. purificat. ʒss. F. Ptisana.*

Two Drachms of the Roots of *Paraíra Brava*, gently boiled in a Pint of Water, and drank at three Times, with three

Hours Distance between each Draught, is good in all calculous Cases, and the moist *Asthma*.

Some use the Powder of *Millepedes* with neutral Salts.

Epithems made of *Camomile-flowers*, *Leaves of Scordium*, *Wormwood*, and *Carduus Benedictus*, *Elder-flowers*, *Water*, and *Red Wine*, used often in a Day, are beneficial.

But if these fail, after long Use, the only Refuge is in Mineral Waters, among which the *Pyrmont* is not the least ineffectual.

These are also properly used by way of Prevention, with Exercise, Decoctions of the aperient Roots, especially acuted with *Sal Polycryst. Ter. foliat. Tartar. or Nitre.* HOFFMAN.

Frewen gives an Instance of a Woman who was afflicted with this Disorder, and had Colic Pains often returning with Symptoms of the Jaundice. In the Fit the Pulse was strong and quick, the Tongue rough and yellowish, the Belly somewhat costive, the *Fæces* white, the Urine thick, sometimes of a deep red, but oftner of a Saffron Colour. The Pain was chiefly in the left *Hypochondrium*, which was exasperated by riding, Exercise, and violent Motion.

To prevent a Fever, or Inflammation, he took away ℥xij. of Blood, which was of a bright Red [*rubicunda & rutila.*] The Serum was green and tinged with Bile.

At Night she took the following Bolus :

3. R. *Hydrarg. Alkalifat.* ʒss. *Sperm. Cet. gr.* xii. *Spec. Diamb. fm. Od. gr.* iii. *Conf. Flor. Malv.* ʒss. *Syr. Violar. q. s. M. F. Bolus.*

The next Morning early the following Potion :

4. R. *Mann. Opt.* ℥j. *Sal. Glaub.* ʒiij. *solv. in Aq. Laet. Alexeter.* ʒijss. *Tum adde Syr. de Spin. Cervin.* ℥j. *Elix. Salut.* ʒss. *Spir. Lavend. comp.* ʒj. *M. F. Potio.*

This brought away an hundred Stones. At Night,

5. R. *Sal. Absynth. gr.* xxv. *Succ. Limon. recentis* ℥vj. *vel ad Saturationem Salis. Aq. Cin. ten.* ℥j. *Nephrit.* ʒss. *Syr. de Croc.* ʒiij. *Tinct. Spec. Diamb. gut.* xx. *Ocul. Canc. ppt. gr.* xv. *Sal. Prunel.* ʒss. *M. F. Haustus. Horâ decubitus sumendus.*

With Regard to the Liver, ℥iij. of the following opening Decoction was prescribed :

6. R. *Rad. Petroselin. Asparag. an.* ʒss. *Aq. Fontan. bullientis. Fiat Infusio per Horâ quadrantem. Colatur.* ℥xiiij. *add. Aq. Nephrit.* ℥j. *Syr. de 5 Rad. Aperient. Violar. an.* ʒss. *Sal. Prunel. Tartar. regen. an.* ʒss. *M.*

7. R. Sapon. Venet. Tart. regenerat. an. ʒss. Aq. Cinnam. cen. Nephrit. an. ʒss. Syr. de 5 Rad. aper. ʒiij. M. F. Haustus quem capiat primo Mane Hor. 5 P. M. & Hor. Decubit.

In three Days the Jaundice vanished.

The Purge was repeated; more Stones were voided.

She then took ʒss. of Sea Water, every Morning at Five. By this Means three hundred Stones were excreted, and the Patient continued well,

Quicksilver, Soap, and Sea Water, are excellent in this Case. FREWEN.

Of the LOCKED-JAW.

CONVULSIONS occasioned by Wounds, have, by almost all Authors, since the Days of Hippocrates, been pronounced mortal, especially that called the *Locked-Jaw*. However, the *London Medical Observations* furnish no less than four well-attested Instances of a Cure in this terrible Disorder.

A Woman, who, by a Fall, broke and lacerated the first Joint of her fourth Finger, which was soon taken off by a Surgeon, whereby she had present Ease: But Part of the second Joint being also denudated, the Pain returned, and increased daily, and the Skin and Flesh could not be brought to cover the Joint, till at Length the whole Hand was greatly swelled, and Abscesses were formed in the Palm. She was blooded, and the same Evening was seized with a spasmodic Contraction of the elevating Muscles of the lower Jaw. Next Morning the Teeth were set, and she could scarce receive even Liquids. Blisters were put on her Back, Neck, and behind the Ears. Alexipharmics and Volatiles were given in large Doses for three Days, but she grew worse and worse, the Jaw being quite immoveable: Spasms seized the whole Spine, which, when she attempted to sit up, pulled her back with the greatest Violence, and her Legs and Arms were thrust out to their utmost Extent. Every Part was continually convulsed, with so severe Pains, that she could get no Sleep; nay, the Sight, Hearing, and Memory, were also greatly impaired. Twenty Drops of *Tinctur. Thebaic.* were ordered every six Hours. Next Day the Symptoms were at a Stand, and thirty Drops were given every six Hours. The following Day she was a little relieved, and the Dose was increased to forty Drops every six Hours, which produced near Half an Hour's Sleep at three different Times; upon which three Grains of the Extract were ordered three Times a Day.

On the Morrow she was surprisngly mended; so that it was thought the Quantity of *Opium* might be lessened from three Grains to two; but after two Days more, upon finding she had gained no further Ground, she was ordered eight Grains a Day, and soon after still more: Notwithstanding which, the Jaw remained almost equally locked, when it was suspected that much was owing to the ill Condition of the second Joint; wherefore the whole Finger was taken off. The next Day she began to mend, and continued to do so every Day more and more; the Convulsions decreased, and soon left her, and the Wound proved kind, and cicatrized as soon as could be expected; but the Jaw was still difficult to move. As the Symptoms abated, the Dose of *Opium* was lessened at the Rate of a Grain a Day, till she took but a single Grain in twenty-four Hours, which having continued some Time longer at Night, she was perfectly cured, excepting a small Degree of Stiffness in the Jaw, when she offered to open her Mouth wide.

A middle-aged, strong healthy Man, happened to tread on the blunt Point of a large Nail, which entering between the two outer metatarsal Bones, went almost through the Foot. The next Day, the Foot being much pained and swoln, he was blooded, the Wound dilated, and a Bit of the Stocking, which had been forced in, extracted; he continued easy for near a Fortnight, except a Cough, supposed to arise from taking Cold; But then he began to complain of a Stiffness of the under Jaw, his Cough was dry and husky, with a stinging Pain in his Breast, striking through to his Back. His Pulse being quick and full, he was blooded to twelve Ounces, and an opening Mixture prescribed. In the Evening he was blistered *inter Scapulas*, an oily Mixture given him for his Cough, and two Grains of *Opium* going to Bed. He had a restless Night, and next Morning the Jaw was closer; a Clyster was given, and after its Operation he was ordered *Mosch. pur. ℥ss. 3a. vel 4a. quaque Hor. in Julep. commun.* being as yet able to swallow Liquids. On the Morrow little or no Variation of the Symptoms. The Musk had greatly heated him, and he was therefore prescribed Broths and Gruels as much as he could get down, and the Musk was continued. He scarce slept at Night, and in the Morning coughed much, and complained of Pains in his Breast, Back, and Bowels; the Jaw was so fast locked, that he could scarce admit the least Nourishment; besides, he complained of a Pain and Difficulty in Urining. The Distemper having evidently increased after two Days Use of the *Musk*, it was discontinued, he lost nine Ounces of Blood, and had a purging Clyster given him; in the Evening he took *Opii pur. gr. ij.* which

which was repeated every three Hours. The fore Part of the Night he was restless, slumbered a little in the Morning, and by Eleven o'Clock he had taken ten Grains of *Opium*. He could now open the Jaw so as to let in Gruels, though with Difficulty, and the Cough and Pains were seemingly abated. He was ordered to take what Broth he could in the Day, and the *Opium* in the Evening, as before. He got two or three Hours Sleep, having taken only six Grains till Morning, when the Jaw appeared much as the Day before; a thick Rash broke out, and he was restless all Day, and complained of a Dysury. The *Opium* was discontinued at Night, and Broths, and Barley Water, with *Gum. Arab.* were his Drink; he had also a laxative Clyster. Next Day he was evidently much worse, the Jaw closer, the Pains violent, shooting upwards from the Belly to the Stomach, Breast, and Back; his Pulse much hurried, and the Rash still out. The former Benefit he had received from the *Opium*; and the Return of the bad Symptoms upon its Disuse, induced his Physician to order him a Grain every Hour, with which he began about Noon; and for his Belly Pains he had a Clyster, with 3*ss.* of *Rad. Valer. Sylv. Pulv.* in the Evening. In the Night he slept about two Hours, and seemed the next Morning almost in all Respects better, except in the lower Belly; yet the Rash was still out, but less florid, the Pulse quick, and the Dysury troublesome. He was ordered *Opii Pur. Gr. i. statim, et repet. omni bihorio.* He got two or three Hours Sleep in the Night, and the next Day seemed a good deal better, and could take Liquids pretty well. The Pulse much the same. The Rash seemed abating, the Dysury less, but the Belly Pains still grievous. His Drinks and Nourishment were continued the same, and he was to take *Opii Pur. G. i.* every six Hours only, with the *Valerian* Clyster again in the Evening. The next Morning there was a general Amendment of the Symptoms; the Pains of the Belly were still complained of with Costiveness, for which he was ordered an *Enem. Purg. cum Tinct. Theb. 3*ss.* Vesperis,* and *Op. Gr. ii. cum As. Fætid. Gr. v.* were directed to be given at Bed-time. The following Day the Cough and Pains of the Breast were returned; he slumbered but little in the Night; the Jaw much as the two preceding Days. As he could use a Spoon pretty easily, he was ordered a Mixture of *Spem. Cet. Sal. Vol. C. C.* and *Elix. Paregoric. Cœchlear. ii. subindurg. Tussi vel Doloris, &c.* at the same Time he was directed *Opii Pur. Gr. ii. statim, et repet. Hor. Somni, et Hor. quinta vel sexta matutina.* In the Morning the Jaw was sensibly freer, and he seemed in all Things better, except the Belly Pains, and the Costiveness; wherefore this Evening he had the *Valerian* Clyster,

and two Grains of *Opium* at Night, to be repeated in the Morning; when every Thing looked more favourable, though the Jaw mended but slowly. It was, therefore, thought adviseable to try *Antispasmodics*; and ʒss. of *Pulv. Rad. Valer. Syl.* was ordered, with the *Julep. e Camphor. ter in Die*, and *Opii Gr. ii.* *Hor. Som.* Though he had but short Slumbers, yet the next Morning the Pains were much easier, he urined freely, his Pulse quieter, but the Jaw still stiffish, with a Pain in its Joints when moved; for which Blisters were applied behind the Ears, and a Pill *Opii Gr. ii.* given at Bed-time. This proved the most tolerable Night's Rest he yet enjoyed, he slept five Hours, and next Morning had a natural Stool, with a better Pulse, and more Flexibility of the Jaw. A laxative Mixture was directed *pro re nata*, and a Pill *Opii, Gr. ii. b. s.* Four Days after he ate a Bit of Pudding, and chewed a Piece of Bread for the first Time, and continued mending daily, the Jaw, however, was not quite restored for some Time. The Wound all along looked well, and healed up several Days before the other Symptoms disappeared. The Texture of the Blood drawn was never sily, but loose, as in most Species of spasmodic Affections. The *Opium* never in the least disordered his Head, although he took no less than Ninety-two Grains in Twenty-two Days.

An unmarried Lady, Twenty-eight Years of Age, slender and pale, complained of a grievous Pain and Tightness of her Breast, under the Middle of the *Sternum*, at the Pit of her Stomach, and about the Root of her Tongue. Her Jaw was so contracted, that the flat Handle of a Spoon could hardly be passed between her Teeth; the *Masseters* were firm and rigid, the Pulse a little languid and slow, and the Tongue, as far as could be seen, in a natural State. She could get nothing solid into her Mouth, but sucked in Liquors, and swallowed them with tolerable Ease, a little at a Time. She made Water in small Quantities, and with Difficulty. Thus her Physician found her; for above a Week before which she felt a small Difficulty in swallowing, with a Tightness about the Root of her Tongue, without any other Complaint: These gradually increased, and were accompanied with a Pain about the Pit of the Stomach, and under the *Sternum*, as mentioned above, without any Signs of Inflammation of the Throat. She was blooded, and the next Day gently purged; the Blood was not sily. Complaining of a little husky Cough, she had an oily Emulsion, and her Throat was fomented with an emollient *Fotus*. The next Night the Purge was repeated, and operated briskly, and Blisters were put behind her Ears; from all which she found no Relief, and the Pain under the *Sternum* increased till the Time the Doctor first saw her, who

who soon concluded the Disease to be plainly that of a *Locked-Jaw*; although there did not appear to have been any of the preceding Causes that usually produce this Complaint; and therefore resolved to try the Effect of Opiates. As she could admit nothing solid, he ordered a small Draught with *Tinct. Thebaic gutt. x.* to be given, and repeated in an Hour, and afterwards every two Hours, and to the Pit of the Stomach a Plaister *ex Opio et Gum. Galban. an. p. æ.* She had a tolerable Night, and slept in the whole about four Hours; by Nine next Morning, the Pain of the Breast was much abated; in this Space she had taken Seventy Drops of the *Tinct. Theb.* could open her Teeth a little, had voided but little Water, and that with a considerable light-coloured Sediment, inclining to Violet. The Opiates were directed to be continued every four Hours. In the Evening she was very faint, with a Catching of the Breath, and a languid Pulse, and could scarce open her Teeth. Having had no Stool for two Days, an emollient Clyster was ordered, and the same Draughts to be repeated every three Hours; she had but an indifferent Night, but was better the next Morning, the Breath easier, Pulse better, and she could open her Teeth with less Difficulty; but as the Jaw was still much locked, and the Opiate did not disturb her Head, the Draughts were continued. About Seven in the Evening she was worse again, and the Jaw more contracted; she had now taken 170 Drops of the *Tinct. Theb.* The Clyster operated gently twice, but she still made but very little Water. The Draughts were continued; about eleven this Night her Pulse was pretty strong, and a little irregular. The ensuing Morning she was very faint, and soon after complained of a great Stricture about her Jaw and Neck, which was immediately followed by a catching of the Breath. Having made no Water all Night, a Turpentine Clyster, and ten Grains of Camphire, with a little Tincture of Valerian in a Draught, were prescribed. In the Afternoon she was better; but the Stricture of the Jaw remained, and the Muscles about the Mouth, Throat, and Neck, were plainly affected with a Spasm. As her Head had never been affected with the Opiate, *Tinct. Theb. Gutt. xx.* in the *Julep. Camph.* were ordered every two Hours for three Times, and then every four Hours. By the next Morning she had taken five of these Draughts, was restless most Part of the Night, but now easier. The Tightness about the Jaw, Mouth, Throat, and Neck, continued, and she felt a Rigidity in other Parts of her Body. The Urine was little, with much Sediment. She drank Plenty of Barley-Water and Nitre. The Draughts were repeated every three Hours, and she had a Turpentine Clyster. The following Day she was the same.

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The Head not yet affected with the Opiates, though she had never before been used to any, and had now taken 420 Drops of *Tinct. Theb.* in five Days. The Urine still small, with a thick Sediment; the Belly soft, and no Fullness about the Region of the Bladder; not only the Muscles about the Mouth, Throat, &c. were hard and contracted, but the Skin too was stretched tightly over them; nay, all the Muscles that bend the Head, Neck, and Body, were contracted; wherefore a hot Bath was recommended, though the Lady dreaded Suffocation, in being carried in a Chair to a Bagnio. However, she bore it well backwards and forwards, as also the Bath, in which she continued near twenty Minutes. She took four more Draughts, during which she made more Urine than since her Illness, and seemed better, though she got but little Rest at Night, and fancied her Breast had suffered for Want of the Plaister, which was taken off when she went into the Bath; a fresh one was therefore applied. She took one Draught the next Morning, and two more before Night. Her *Menfes* had appeared whilst she was in the Bath, though a Week before the stated Time. The following Day Things continued much the same; yet the Pulse was good, she had slept better, and made more Water in the Night, with a large Sediment. She now had no Stool for four Days, so an opening Clyster was administered. As within the Week she had taken above 500 Drops of *Tinct. Theb.* without conquering the Disease, it was thought proper to intermit their Use for twenty-four Hours at least, and try the nervous *Fœtids*: Therefore a Draught, with a little Tincture of Valerian and Castor, was ordered to be taken immediately, and repeated each six Hours. She passed the Night badly, and on the Morrow her Jaw was locked faster than ever, the Muscles more rigid, the Breathing harder, the Agitation of the Spirits increased, and not a Drop of Urine had been voided for twenty-six Hours. From all this it was plain, that Opiates were not to be neglected, and therefore thirty Drops of *Tinct. Theb.* were given directly, to be repeated every two Hours for three Times, and afterwards every four Hours. By next Morning (reckoning from the foregoing Morning) she had taken six of the Draughts. Her Jaw was so free, that she could open her Teeth near half an Inch; all the Muscles about the Neck and Throat were relaxed, and felt easier; she breathed better, and had slept with Refreshment. The Urine also was considerably increased. From this great Amendment, it was reasonable to conclude, that Opiates were, perhaps, the only Medicines to be relied upon; and the Draught was ordered to be repeated every six Hours. The next Day she was much the same: The Draughts repeated as Yesterday; the following Day the same;

as also the succeeding Day, saying that a Rash came out all over her; and she took but three Draughts in the whole. On the Morrow she was considerably worse, extremely low and faint, and her Jaws as close as ever. Ten Drops of the *Tinct. Theb.* and one Scruple of Mithridate, were added to each Draught, and ordered to be repeated every four Hours. The next Day she was much better, and could open her Jaw wider than she had yet done: Had taken since Yesterday 240 Drops, and two Drams of Mithridate. The Day after, much the same: The Draughts continued: The Bath ordered again. Next Day likewise much the same; made a Quantity of Water; but complained of a Spasm or Tightness under the *Sternum*, and could not break Wind when she attempted it, by which she had always found much Relief. The Draughts continued, and she was ordered into the hot Bath every Day. The following Day she complained much of her Throat, and had taken but two Draughts; had three Stools in the Night; the first very costive, the only Discharge of the Kind, without the Aid of Medicine, since her Illness; for Clysters had been used all along; she made more Water likewise: A purging Potion was ordered, and the Draughts occasionally. On the Morrow she was in all Respects better, but the Jaw being still somewhat rigid, she bathed for several Days in warm Water, took one or two Draughts a Day, began to eat solid Flesh, slept pretty well of Nights; urined freely, and had commonly two natural Stools a Day. Finally, she went into the Country, continued to mend, and in a little Time recovered her former State of Health, without further Use of any Medicine whatever.

A young Man of Twenty was seized with a Pain in his Throat, and a spasmodic Contraction of his lower Jaw, which, after four Days, was so closely locked, that it was impossible to open it, without running the utmost Risque of breaking it. He could take none but liquid Nourishment, and that with great Difficulty. Violent convulsive Spasms seized him almost every Minute, and his Head was forcibly thrown back upon every Attempt to rise from his Chair. His Legs were affected with the like Spasms, his Eye-lids contracted, and his Hearing much impaired. He could scarce void his Urine, and had no Stools but by Clysters. He had also the *Risus Cynicus*, the *Gastrocnemii* and *Abdominal* Muscles were as tense as possible, and all his Joints so stiff, as not to be moved without great Violence. He had received a Bruise, about a Month before his Symptoms appeared, on the anterior Part of the fourth Finger of the left Hand, which he now thought to be well, though he wore a little Plaister on it, upon removing which, no Inflammation or Swelling appeared,
but

but only a little thin limpid Discharge from an Orifice, which would but just admit the Point of a very slender Probe, by which it was plainly perceived, that the Bones of the second and third *Phalanx* were bare in the Joint, and the Ligaments destroyed, so that the Joint was entirely useless. The Surgeon, however, could not persuade him, or his Friends, that his Disorder was owing to this Accident, as he had continued well so long since he received the Hurt, without any Return of Pain. He was blooded, blistered, vomited, purged, and clystered, without any Benefit; and took Musk, Bark, Camphire, and Valerian, in large Doses, with as little Effect. Opiates alone seemed to mitigate the Symptoms, which were gradually increased from small Quantities, till he took a Grain of *Opium* every Hour, and continued so doing for several Days together, without obtaining more Sleep than usual. These Opiates proved but a temporary Relief; for when they were omitted, he relapsed into as bad a State as ever. At length, six Weeks after the Accident, the last *Phalanx* was taken off at the Articulation; the Disorder, nevertheless, did not abate till four or five Days after, upon nipping off the Extremity of the Bone, and with it a little Splinter, which still irritated the nervous System; when his convulsive Spasms were become immediately both less severe and less frequent. The Quantity of his Opiates was reduced by Degrees, till in about a Month his Fits entirely left him. The Jaw, however, still remained so stiff, that he could open it but a little Way, and the Muscles of the Belly and Legs were so tense, that he could not walk without Assistance. But those Symptoms were soon removed by the Use of the warm Bath frequently repeated, and he became perfectly well, and able to undergo any Fatigue. He took 317 Grains of *Opium* in about five Weeks, besides several Draughts with *liquid Laudanum*, and Syrup of Poppies.

From the Recital of these Cases, the following Inferences may fairly be drawn:

That in the *Locked-Jaw*, Blood drawn from a Vein, appears no-ways sizy or inflammatory; nor do the neighbouring Muscles of the *Pancreas*, Tongue, Neck, or Head, discover the least Mark of Inflammation.

That neither Bleeding, Purging, Blistering, Alexipharmics, Volatiles, Foetids, &c. are by themselves of any Importance in this Disorder.

That Opiates alone are capable of keeping the Symptoms at a Stand; and by being gradually increased to very considerable Doses, without Intermission or Abatement, are able to subdue this most obstinate, violent, and reputedly desperate Disease, and restore

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restore the Patient to Health; and this the more easily, if assisted with warm Bathing.

That Patients under this Disorder very rarely or never experience any bad Effects from the most liberal Exhibition of Opiates; but, on the contrary, find certain Relief from the most distressing and excruciating Symptoms, and acquire Rest and new Spirits: That even eight or ten Grains of Opium a Day may be safely given and continued, without Intermision, for Weeks together*.

That when the Disorder arises from some external Injury, as Bruises or Lacerations of a Tendon, &c. as it generally does, if the Pain cannot readily be appeased, and the Wound healed, the injured Part must be amputated, in order to extinguish the Irritation on the *Genus nervosum*, before even Opiates can possibly take Effect.

Of the OPISTHOTONOS and TETANUS of North-America.

THE *Opisthotonos* often comes on gradually, and by slight Approaches, the Patient complaining at first rather of an uneasy Stiffness in the back Part of the Neck, and about the Shoulders, than of any acute Pain, with some Degree of a general Lassitude. These increase, and become so troublesome when he attempts to turn his Head, or to bend it forwards, as to oblige him to walk very erect; for he can by no Means look downward, nor to either Side, without turning his whole Body. He cannot open his Jaws without Pain, and has some Difficulty in swallowing, which discourages him from attempting to eat. At Times he feels a sudden and painful Traction under the *Cartilago ensiformis*, which strikes through the Back, and instantly increases the Rigidity about the Neck and Shoulders, draws the Head backward a little, and shuts the Jaws closer. The Pain under the *Sternum* returns more frequently and violently, and the other Contractions become so strong, that from this Time the Head continues much contracted, and he now refuses Nourishment, through the Pain of Swallowing, which produces a Re-

* In each of the above Cases, near ten Grains of *Opium* a Day were given, before any notable Ground could be gained; and the last Patient, in about five Days, (as is said,) took no less than 317 Grains of Opium, besides several Draughts with liquid *Laudanum*, and Syrup of Poppies, without the least ill Accident.

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turn of the Spasm, and extends along the Spine, quite to the lower Extremities, so that they will no longer support him, and he is under the Necessity of taking to his Bed.

Thus passes over the first Stage of the *Opisthotonos*, which sometimes takes up three or four Days; the Patient, and those about him, mistaking the first Appearances for a Crick in the Neck: But sometimes it forms itself much quicker, even in a few Hours; in which Case the Danger is generally proportioned to the Violence of the first Attack, such mostly dying in twenty-four, thirty-six, or forty-eight Hours, and rarely surviving the third Day: When less acute, few are lost after the ninth or eleventh. In this Stage the Pulse is slow and very hard, and the Belly bound; Blood drawn, seems unaltered from its natural State, only varying by a Laxity of Compactness.

In the second Stage, the Spasm under the *Sternum*, (which is the pathognomic Symptom of this Disease,) becomes more violent, returning every ten or fifteen Minutes, and is ever instantly succeeded by a stronger Retraction of the Head, with great Rigidity and Pain all round the Neck, and along the Spine, to the lower Extremities, which are suddenly stretched. The Countenance is very pale and contracted, the Jaws are that Moment snapped together, nor can afterwards be opened so wide as to receive the End of one's little Finger, an Attempt to do which, by Way of Experiment, surely hurries on the Spasm. All the Muscles serving to Mastication and Deglutition, and the Deltoid and Pectorals are violently contracted, so that the Shoulders are strongly raised forward, and the Arms are stretched out, or drawn across the Body; but the Wrists and Fingers seem not to be affected.

Such is the Condition during the Spasm, which ceases in a few Seconds; then the Shoulders and Arms recline, and the lower Extremities relax, yet not so entirely, but that so much Rigidity usually remains, as will not permit them to bend, though attempted by another Person; for as to the Patient, he cannot at all move them. The Muscles on the Sides and fore Part of the Neck, continue still contracted, though not so much, but their Action is overcome by the Number and Strength of the posterior ones, so that the Retraction of the Head constantly remains; he breathes for some Minutes much, as if he had been excessively fatigued, and the Pulse is small, fluttering, and irregular, but both become more calm and slow. The Pulse, especially, in some, beats not above forty times in a Minute; in others it is quicker than natural, and always hard. The Face is sometimes pale in the Intervals, but oftener flushed, and the whole Countenance indicates the most melancholy Distress, as well
from

from the Dread of the Return of the Spasm, as from the Pain by the present Contractions, and the Remembrance of the more severe past ones. The Tongue is stiff and torpid, but, as far as can be seen, is not foul. The Urine can seldom be saved, being forced away by the Spasm, or voided in the Bath. What has been seen is mostly high-coloured, (perhaps because they drink but little,) with a thin, dusky Cloud suspended in it. The Head is rarely complained of, although they mutter a little in their short Slumbers, from which they are soon roused by the Spasm. The Belly is always bound, and cannot be loosened. In Drinking, the Liquid passes with great Difficulty to the Stomach, even in the smallest Quantity; and if the Spasm should seize him at that Time, which an Attempt to swallow for the most Part occasions, the Liquor returns through the Nose with Force. Blood drawn in this Stage looks no way inflammatory, but rather of a dissolute *Craus*, with florid and dusky Streaks. In general, they desire to lie still as much as possible, and avoid Drinking, Speaking, or Stirring, either of which is apt to make the Spasm return. But others again require to be turned in hope of procuring an easier Posture, which never fails to produce an Attack of the Convulsion, whereby the Head is drawn back to the Spine, which is best prevented by lying on the Back.

In the third or last Stage, the Patient is reduced to the most calamitous Circumstances, being on a continual Rack, in the most literal Meaning: For the Spasm returns oftner than once in a Minute, is far more violent, and lasts longer, so that there is scarcely any Remission: The anterior Muscles of the whole Body now suffer equal Contractions with the posterior, but the last overcome the Force of the others, so that the Spine is strongly bent backwards, and forms a hollow Arch, that the Patient rests entirely on the hind Part of his Head, and his Heels. The Belly is flat, and drawn inward, and the Muscles so rigidly contracted, as not to yield to Pressure, nor give way to the Descent of the Diaphragm in Inspiration; the several Muscles about the Neck, Sides, and Abdomen, being plainly distinguishable from each other. Although the lower Extremities are always rigid in this State, yet are they so suddenly and violently distended during the Spasms, that, were it not for the Standers-by, he would be projected, Feet foremost, off the Bed; while others again are, as it were, pushed upwards with such a Spring, that the Head is struck with great Force against whatever happens to be in the way, the Thighs and Legs being, in this Case, no less rigid than the other Parts. The Tongue is convulsively darted out, and often miserably torn, as the Teeth are that Moment snapped together, so that it is necessary to prevent this, by keeping the Handle of a Spoon, wrapped round with

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with soft Rags, between the Teeth, when it can be done. At the same Time the Tongue is thus thrust out, the muscular Flesh, which lies between the Arch of the lower Jaw, and the Head of the *Trachea*, seems to be drawn upwards within the Throat. The Countenance is very much contracted, and he is in a Foam of Sweat, the Heat being very great, and the Pulse between the Spasms exceeding quick, small, and irregular, although the Heart throbs so strongly, that its Motion may be plainly seen, and a palpitating subsultory Kind of Undulation may not only be felt, but perceived all over the epigastric Region. The Eyes are watery and languid, and a pale or bloody Froth bubbles out from between the Lips. The Jaws are, for the most part, locked fast, so that it is impossible to give Drink or Nourishment, nor could he swallow it, if any Thing were put into his Mouth. In this State they are commonly delirious, and as they cannot subsist many Hours, under so great a Suspension of the vital and natural Functions, a mortal Anxiety ensues, and releases them; oftener a continued and severe Spasm finishes the Tragedy, when it was before almost at an End; most frequently a general Convulsion puts a Period to their Sufferings, and which ever way this happens, they, for the most Part, relax just before Death.

In the *Tetanus*, the general Symptoms are nearly the same as in the *Opisthotonos*, except that from the first Attack, the lateral, abdominal, and other anterior Muscles, are equally contracted with the posterior ones; and the Arms become rigid, as well as the lower Extremities. The *Abdomen* is always flat and rigid, as in the last Stage of the *Opisthotonos*, and its Contents seem to be thrust up into the *Thorax*, which at the same Time appears to be much dilated. There are here also some Intervals between the Spasms, during which the Cheeks are drawn towards the Ears, so that all the Teeth may be seen. Deglutition is more free in this than in any other Disease; yet so far is the Sick from being equally balanced between the Contractions of the opposite Muscles, that the Head is retracted, and the Spine is recurvated, though not quite so much as in the *Opisthotonos*: And the Spasm which commences under the *Sternum*, is likewise common to the *Tetanus*, which terminates as the other, and on the same fatal Days. But whoever recovers from either, labour long under a general *Atonia*, and they cannot for some Months raise themselves from a supine or recumbent Posture, without Pain, nor without Help, for some Time.

Nothing like a *Crisis* ever happens in these Diseases; so that the Recovery must entirely depend on Medicine, in the Choice of

of which all very heating and stimulating Things, given inwardly, or applied outwardly, are to be avoided, especially *Blisters*, which have a most pernicious Effect. Mild *Purgatives*, joined with temperate *Diaphoretics*, have been given gradually, and continued till they had operated, without any Advantage; nor did *Vomiting*, which was excited accidentally, by the *Kermes Mineral*, answer any good Purpose, although much Bile was thrown up; and Worms have been voided both Ways in others without yielding any Relief. Musk has not yet been tried, but it is probable, after the Violence of the Spasm has been abated by *Opium*, it might be given in large Doses, with good Effect.

If the Patient is plethoric, Bleeding at the Beginning of the second Stage (and the Physician is seldom called sooner) is necessary;) not because it has ever procured any Abatement of the Symptoms, but that, by emptying the Vessels, he will bear the warm *Bath* and *Opium* better, from the Use of which this Recovery is to be wholly expected (so far as has been hitherto discovered) for they seldom can swallow any thing till after the Bathing; and as Deglutition becomes more free, Drink or Nourishment are then to be given through the Spout of a Tea-pot.

If the Weather is warm, and the Pulse quick, with a preternatural Heat in the Skin, the Warmth of the Water in the *Bath* should not exceed the 96th or the 98th Division on *Fahrenheit's* Thermometer. But when the Pulse is slow, with little Heat, it ought to be so warm as to raise the Mercury to the 100th or 102d Degree, especially in cold Weather. While he is in the Water, gentle Friction should be used, especially about the Neck, Breast, and along the Spine, so far as it can be come at; and he is to be kept in the *Bath*, until the Pulse becomes soft and full. When it is thought necessary to take him up, he is not to be wiped dry, but must be wrapped immediately in a dry Blanket, and put to Bed, in which they usually sweat freely: But should those Sweats prove too profuse, especially if the Pulse becomes very frequent and contracted withal, with an intense Heat of the Skin, they are to be discouraged by rubbing the Skin dry with a warm Cloth.

It is to be observed, that the Person should lie at full Length in the Tub, having a Blanket rolled up for a Pillow under his Head, and, except his Face, he ought to be covered with Water, a due Heat of which must be kept up, by supplying warmer Water as it cools in the Bath; wherefore it is necessary to have a Kettle always over the Fire, with the Bathing Tub at the Bed-side, that both may be ready when wanted, which may be five or six times in a Day.

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If no gentle *Opiate* was given whilst he was in the *Bath*, let him soon after take a large Dose, which ought to be repeated boldly every half Hour, or at such Intervals, as to allow Time to judge of the Effect of the preceding one; and in this Manner the Use of it is to be continued, until the Spasm under the *Sternum* ceases, which will be surely succeeded by a Remission of the Contractions. But as both will as certainly return, when the Effect of the *Opiate* wears off, it must be repeated in due Time, by Way of Prevention; of the Necessity of which the Patient will have Warning, by perceiving the gradual Approach and Increase of the Pain, as the Operation of the *Opium* diminishes. Wherefore he should be from Time to Time questioned about it, and, when found necessary, the *Opiate* thrown in and repeated till the Intention is answered, and the Pulse becomes soft, full, and equal, with an even Moisture over the whole Body. In Proportion to which Appearances, the Quantity of the *Opiate* may be diminished, and the Intervals of giving it enlarged; yet its Use may be necessary many Days.

To suppress this Spasm, observe, much larger Doses of *Opium* are required than perhaps in any other Disease; so that the Quantity cannot be defined, but must depend on the Effect. Some have taken 200 Drops of the *Tinct. Opii* for a Dose, and were not kept easy three Hours, and some will take more than an Ounce of the same in a Day, without being affected with a *Stupor*. Yet, after all, the Reader should be admonished, that such excessive Quantities are not to be hazarded, till smaller Doses are found ineffectual. In general it will be necessary to give very freely; and he who contents himself with complying with the Directions usually given for administering *Opium*, will, in those Diseases, deceive himself and his Patient, by such supposed prudential Timidity.

Besides *Opiates* and *Bathing*, *Glysters* repeated with a *Decoction* of *Camomile Flowers*, *Mallows*, &c. to which a large Portion of *Oil* is added, should frequently be injected. A *Bladder* half filled with warm *Water*, and tied close, should always be kept on the Pit of the Stomach when the Patient is in Bed, and the rigid Parts should often be bathed with warm *Oil*, to which some *Opium* is added, with a continued and gentle *Friction*.

In the *Tetanus*, the same Method will take Place, and the *Abdomen* may be often fomented with four-fold large Flannels, squeezed out of an *emollient Decoction*, taking Care to guard the Bed-cloaths from being damped by the Steam.

During the Severity of the Disease, the Sick may drink a *Decoction* of *Figs*, *Liquorice*, and *Fennel Seeds*, *Sage Tea*, very weak,

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weak, White-wine Whey, or any mild diaphoretic Liquid. For Nourishment, thin strained Gruel, Panada, or weak Broth. But after the Contractions have ceased some Days, a little Canary, or Mountain, may be added to his Gruel, and his Broths may be stronger, to recruit his greatly impaired Strength.

When the Spasm has ceased some Days, a Solution of Manna, regenerated Tartar, with a little Saffron, and Treacle Water, should be given in small Doses every Hour, to prevent any new Disturbance from the Stimulus of any Bile, or other Acrimony, by which a Stool may be procured, without Fear of exciting any new Spasm.

CHALMERS.

END of VOL. I.



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